CrossTalk

March 2025 — 66 Years Of Service To Amateur Radio & Our Community — Issue 66 : 03

2025 Club Officers

President :	Jonathan Pearce, WB2MNF
Vice President :	Ronald Block, NR2B
Treasurer :	John O'Connell, K2QA
Recording Secretary :	John Zaruba Jr, K2ZA
Corresponding Secretary :	Michael Resnick, N2WOQ

Trustees - 4 Year Term

Charles Lanard, KD2EIB	(2022-2025)
Sheldon Parker, K2MEN	(2023-2026)
Len Rust, W2LJR	(2024-2027)
Earl Moore, KC2NCH	(2025-2028)

Directors - 3 Year Term

Chris Prioli, AD2CS	(2023-2025)	Bill Price, NJ2S	(2024-2026)
James Wright, N2GXJ	(2023-2025)	Jeffrey Garth, WB2ZBN	(2025-2027)
Al Arrison, KB2AYU	(2024-2026)	Frank Romeo, N3PUU	(2025-2027)

Basic CHIRP Programming Class
Saturday, March 1, 2025 @ 0900 Hours
W2MMD Clubhouse

General Membership Meeting
Wednesday, March 5, 2025 @ 1900 Hours
In-Person & ZOOM : 914 7364 1808, 843147

Tech Saturday Forum
Saturday, March 8, 2025 @ 0900 Hours
W2MMD Clubhouse

License Testing Session
Thursday, March 13, 2025 @ 1900 Hours
W2MMD Clubhouse

Board of Directors Meeting
Wednesday, March 19, 2025 @ 1900 Hours
W2MMD Clubhouse

Dinner @ The W2MMD Clubhouse
Wednesday, March 26, 2025 @ 1800 Hours
W2MMD Clubhouse

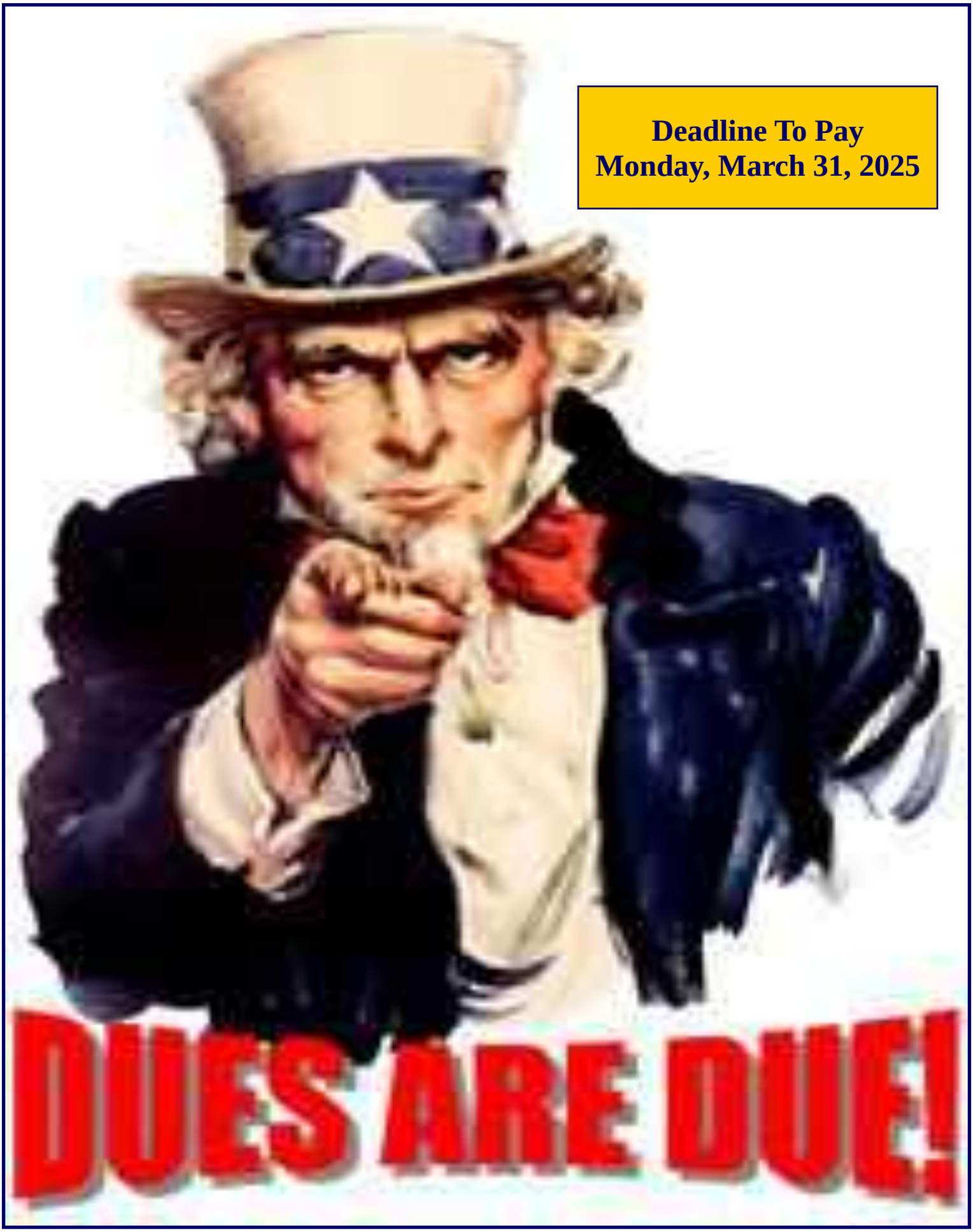
Tuesday AfterNoon 2M Net @ 1200 Hours
Thursday Night 2M Net @ 2000 Hours

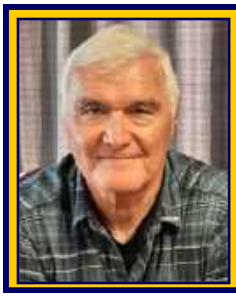
Tuesday & Thursday 10 Meter Net @ 1930 Hours
28.465 MHz or 28.475 MHz

Monday & Thursday Night 40M Net @ 1930 Hours
7.235 MHz (+/- 5 or 10 kHz)

Inside This Issue…

President's Letter ..... *Page 3*
Welcome New Members ..... *Page 5*
March 5th General Membership Meeting . *Page 6*
Regional Hamfest & Events ..... *Page 7*
March 8th Tech Saturday Forum ..... *Page 8*
Monthly VE Session Summary ..... *Page 10*
FT8 Super-Fox Mode Official ..... *Page 12*
DA's & DIT's ..... *Page 13*
Couple Dozen Good DX Months ..... *Page 14*
December 2024 VMP Report ..... *Page 15*
Fox Hunt 32 Highlights ..... *Page 16*
Flashing OpenGD77 Firmware ..... *Page 18*
Education Connection ..... *Page 22*
At The Repair Bench ..... *Page 26*
AI Ham Radio Applications ..... *Page 28*
ARES SNJ Section Update ..... *Page 30*
Asteroid Hitting Earth ..... *Page 36*
Element 4 Question Quiz ..... *Page 37*
N4NYY Road Trip To K3TS ..... *Page 41*
General Membership Meeting Minutes .... *Page 44*
Board of Directors Meeting Minutes ..... *Page 46*
DXCC Honor Roll ..... *Page 48*
March 2025 Birthdays ..... *Page 52*
NG3K Announced DX Operations ..... *Page 55*
March 2025 Contest Calendar ..... *Page 56*
2025 Club Committees ..... *Page 59*
Last Page Calendar ..... *Page 60*


Deadline To Pay
Monday, March 31, 2025
DUES ARE DUE!



President's Letter
Jon Pearce, WB2MNF

March 2025

GCARC Update: An Exciting Time for Club Members
The year 2025 is shaping up to be a great time for the GCARC. Long-term projects are nearing completion, meeting presentations and Tech Saturday work sessions are planned through the Summer, and group projects are thriving. Here's a rundown of the latest developments :

VHF Tower Activation
After over two years of steady progress, both VHF towers are now standing on their concrete bases behind the Clubhouse. The 72-foot tower's lift mechanism is fully operational and the tower is extended to its full height, while the 89-foot tower still needs some work. The shorter tower will soon support VHF operations, with antennas from 2 meters to 1.2 GHz connecting to new radios in the VHF room - perfect for contests and general use. The taller tower is earmarked for future UHF and microwave projects, pending equipment acquisition. Expect the Club's premier VHF station to be operational within months, opening up this unique aspect of ham radio to new operators.

DMR and Collaborative Projects
February's Tech Saturday on Digital Mobile Radio (DMR) drew strong interest, signaling enthusiasm for this mode. A new DMR repeater at Rowan University will soon enhance communication, with added capabilities for Yaesu System Fusion hotspot linking and potential support for an experimental M17 digital voice network. This initiative offers something for everyone - operators can jump in easily, while experimenters can push boundaries. The March 8, 2025 Tech Saturday Forum will cover the setup, programming and operation of DMR radios on repeaters and hotspots and other group sessions will be added as appropriate.

M17, Ballooning and 915 MHz Meshtastic
Unlike the mature DMR mode, M17 is an open-source digital voice project still in development - ideal for those who enjoy tinkering over instant results. Built by and for the ham radio community, it promises greater control and lower costs than proprietary options. It's a long-term endeavor with plenty of room for innovation, and several Club members are already experimenting with this mode. Let us know if you'd like to join in.

Meanwhile, our balloon experiments will ramp up as Spring arrives, with activities planned alongside Woodruff Middle School's STEM Club. The balloon team welcomes new members to explore radio payloads, power solutions, and lift options. A highly programmable payload transmitter also awaits someone eager to dive in and make an impact.

We're also exploring an interesting opportunity to expand our reach and engage with a growing community by considering the implementation of a 915 MHz Meshtastic node for unlicensed use at the Clubhouse. In the Philadelphia area, there's a thriving group of Meshtastic users who rely on these low-power, long-range radios for off-grid communication, and users in Gloucester County could benefit from enhanced coverage.

President's Letter - Continued on page 4

President's Letter - Continued from page 3

By setting up a high-elevation node, we'd offer broad, reliable access to this network, potentially drawing in new enthusiasts to our Club. This project not only aligns with our mission to experiment with innovative radio technologies but also provides a chance to connect with a diverse group of users, showcasing the value of ham radio and possibly inspiring some to join our ranks. Stay tuned as we discuss the logistics and gauge interest.

Group Construction Projects
Looking ahead, we're excited to announce plans for project building sessions that will bring our technical passions to life. One highlight on the horizon is the UHF/VHF Dummy Load Wattmeter, featured in the February 2025 QST magazine. **Chris Prioli, AD2CS**, is already hard at work pulling together the materials lists, and we're kicking off the planning for this event. This project combines constructing an RF power sensor with an Arduino-based display, all mounted on a custom PC board. It promises to be a fun build while delivering a practical tool for measuring power output in your ham shack - a perfect blend of learning, building, and utility for our members. This will be a late Spring or early Summer Tech Saturday project.

Field Day Preview : June 28 & 29, 2025
Though it's early, Field Day planning is underway with exciting changes ahead. The retirement of several veteran operators will create openings for newer members to take on key roles during this flagship event. Field Day offers a fun, collaborative setting to learn from seasoned hams and try contest-style operating (even if it's not technically a contest). Watch for announcements in the coming months and plan to join in.

The W2MMD Clubhouse : Our Unique Hub
Our Club stands out with its dedicated Clubhouse - a vibrant space where members gather on Saturday mornings and beyond to connect, collaborate, and bring radio projects to life. Beyond our top-notch HF and VHF stations, the Clubhouse supports a wide range of impromptu projects, from testing ideas to setting up temporary or permanent operations. The test bench and construction area are perfect for building or fixing gear, while the project space near the VHF room offers tools for microcontroller and SDR experiments. For many, the Clubhouse doubles as a "home station," providing resources few can match personally. If you're not yet a regular, drop by on any Saturday morning, say hello, and see what's happening - help is always on hand if you need it. The Clubhouse is a valuable asset for every member, so make the most of it!

Looking Ahead with Inspiration
As we move through 2025, the GCARC is buzzing with opportunity - from cutting-edge digital modes to hands-on experiments and the camaraderie of Field Day. This is more than a Club; it's a community of curious minds, innovators, and radio enthusiasts pushing the boundaries of what's possible. Whether you're a newcomer or a seasoned operator, your voice, ideas, and energy can shape our future.

73 de Jon WB2MNF

Welcome New Club Members :

Greg Anderson, KE2FAS, an Amateur Extra who lives in Cherry Hill, NJ.
Edward Champion, N2RO, (Returning Member), an Amateur Extra who lives Franklinville, NJ
Richard Danner KE2FES, a Technician Class who lives in Mullica Hill, NJ.
Misael Fernandez Jr, KE2EBL, a Technician Class who lives in Vineland, NJ.
Charles Jay Fox, K2FOX, (Returning Member), a Technician Class who lives in Malaga, NJ.
Robert McMeekin, KE2FEG, a Technician Class who lives in Haddon Township, NJ
John Newman, WB4YLM, an Advanced Class who lives in Millville, NJ.
Michael Talerico, Associate Member, who lives in Mullica Hill, NJ.
Phaon Robert Trexler III, KB3ACE, a General Class who lives in Morton, PA.

We are glad to have you as members of the Club and hope to see you regularly at Club meetings, events, and activities. Hope to see you at the March 5th General Membership Meeting, either in-person or on ZOOM, the March 8th Tech Saturday Forum, the Board of Directors Meeting on March 19th, the Dinner @ W2MMD Clubhouse on March 26th, and the Monday Night GCARC TechNet ZOOM Forum.

We also hope to ***"SEE"*** you on the ***"AIR"*** on the following nets :

- Sunday Night Skywarn 2 Meter Net @ 1930 Hours.
- Sunday Night ARES 2 Meter Net @ 2000 Hours.
- Tuesday AfterNoon 2 Meter Net @ 1200 Hours.
- Tuesday & Thursday Night 10 Meter Rag Chew Nets @ 1930 Hours on 28.465 or 28.475 MHz.
- Monday & Thursday Night 40 Meter Nets on 7.235 MHz (+/- 5 or 10 kHz) @ 1930 Hours.
- Thursday Night Rag Chew 2 Meter Net @ 2000 Hours.

All 2 Meter nets are on our 147.180 MHz (PL 131.8) repeater or on EchoLink W2MMD-R.

Tuesday & Thursday Nights 10M Rag Chew Net @ 1930 Hours
28.465 MHz or 28.475 MHz

Basic CHIRP Programming Class
Saturday, March 1, 2025 @ 0900 Hours
W2MMD Clubhouse

A class on Basic CHIRP Programming with the availability of individual assistance afterwards.

Please let Chris Prioli AD2CS (chris@ad2cs.com) know if you would like to attend.

Those who do attend are advised to bring the following :

1. **The radio that needs programming**
2. **A programming cable for that radio**
3. **The laptop PC from which the programming will be done**

CHIRP Website : https://chirpmyradio.com/projects/chirp/wiki/Home

General Membership Meeting

Wednesday, March 5, 2024 @ 1900 Hours

Pfeiffer Community Center

Simulcast Live Via ZOOM : Meeting ID : 914 7364 1808; Passcode : 843147
Join ZOOM Meeting Link : https://bit.ly/3Pt4dLO

Go to : www.w2mmd.org to download the ZOOM log-on instructions PDF

ARRL's RFI Program

By Steve Anderson, W1EMI

This month, we are excited to welcome **Steve Anderson, W1EMI**, an RFI engineer at ARRL in Connecticut. Steve plays a crucial role in helping amateur radio operators tackle RFI (Radio Frequency Interference) issues. His responsibilities include working with local RFI teams, conducting tests on devices with significant RFI potential, serving as the ARRL EMC committee and FCC liaison, and participating in noise surveys.

Our program will kick off by understanding the scope of RFI through relevant statistics, establishing a clear baseline to identify common causes. These insights will highlight the primary sources of RFI and where they are likely to occur.

Steve will also shed light on Federal Laws designed to manage RFI, ARRL-supported resolution options, and the FCC's role in the process.

Most importantly, Steve will guide us on identifying and resolving RFI issues. When resolutions prove challenging, the ARRL can assist in testing problematic consumer devices and exploring potential solutions. In those cases where local efforts fall short, the ARRL will intervene with responsible entities and escalate the issues to the FCC if necessary.

This should be very interesting and informative! See you there.

Regional (Atlantic & Hudson Divisions) Hamfests & Events

March 08, 2025 : BSA Venturing Crew 73, Warren County Hamfest 2025, Youngsville Free Methodist Church, 179 Davis Street, Youngsville, PA. **www.sites.google.com/site/kb3bsa/warren-county-hamfest**

March 08, 2025 : Cherryville Repeater Association, Cherryville Hamfest and Tech Expo, North Hunterdon Regional High School, 1445 Route 31, Clinton, NJ. **www.w2cra.org**

March 22, 2025 : Frederick Amateur Radio Club, FredFest 2025, Independent Hose Company Social Hall, 310 Baughmans Lane, Frederick, MD. **www.frederickarc.org**

March 22, 2025 : New Jersey Antique Radio Club, NJARC Spring Ham Fest & Swapmeet Show, Parsippany PAL Building, 33 Baldwin Road, Parsippany, NJ. **www.njarc.org**

March 29, 2025 : Westmoreland Emergency Amateur Radio Service, WEARSFEST, Greensburg Masonic Center, 349 Donohoe Road, Greensburg, PA. **www.wc3ps.org**

Bob Buus, W2OD, ARRL Northern New Jersey Section Manager, Silent Key

Robert "Bob" Buus, W2OD, passed away on February 18, 2025. He has served as the ARRL Northern New Jersey Section Manager since 2020. Buus served as an Assistant Section Manager, Emergency Coordinator, and Net Manager prior to his appointment. Buus was born in Minnesota and was first licensed in 1950. He graduated from the University of North Dakota with a degree in electrical engineering. He worked for Bell Laboratories and completed a master's from New York University, according to his obituary. Buus was a Volunteer Examiner and an ARRL Life Member. He was 87 years old.

You Can Pay Your Membership Dues Using Cash, Check, Credit Card :

- **Pay your dues using our Pay Dues Here webpage**
- **Bring your money to any General Membership Meeting**
- **Bring your money to any Tech Saturday Forum**
- **Bring your money to any Saturday @ The W2MMD Clubhouse**
- **Bring your money to any Dinner @ The W2MMD Clubhouse**
- **Send your check in to our PO Box 370**

Gloucester County Amateur Radio Club
PO Box 370, Pitman, NJ 08071

The membership dues are :

- **$30.00 - Full Membership (Plus an Optional Donation)**
- **$15.00 - Family Membership**
- **$25.00 - Associate Membership (Plus an Optional Donation)**

March 31, 2025 is the deadline to renew your membership dues

Tech Saturday Forum

March 08, 2025 @ 0900 Hours

W2MMD Clubhouse

Forum Topic : DMR Hands-On Workshop

The March 8, 2025 Tech Saturday Forum will continue our coverage of Digital Mobile Radio in a "Hands-On DMR" session. At this session we'll be flashing OpenGD77 firmware for those who have purchased compatible radios, programming "codeplugs", and demonstrating how to use the radios with hotspots and DMR repeaters. This session should allow new DMR users to get on the air with their radios and start exploring this new area of our hobby.

If you don't yet have a OpenGD77-compatible radio one good option is the Baofeng DM-1701 radio currently available for about $70 on Amazon. And if you'd like to set up a DMR hotspot for your home you can order the AURSINC MMDVM Hotspot Board (V1.5.2) for $40 along with a Pi Zero 2 WH - Pre Soldered Header, Quad-Core 1GHz CPU computer for $27 along with a micro SD card (various options are available), bring it to the session and we'll set it up.

Q & A Session About All Things Ham Radio and Socializing!

The HF Station Will Be Available For Local Operation!

Tech Saturday sessions are held at the W2MMD Clubhouse on the first Saturday of the month following the Wednesday Night General Membership Meeting and are designed to be hands-on collaborative events focused on using the Clubhouse resources to demonstrate various aspects of Amateur Radio and related technical areas. Previous sessions have covered USB software-defined radios, Raspberry Pi and Arduino devices, satellite operations and other similar topics.

We would like to invite all of our new members as well as our veteran members to our Tech Saturday Forums to help answer any questions and discuss any and all issues the new members have come across as they progress through the ***Amateur Radio Experience*.**

The Discussion Theme is a QSO starting point - a way to initiate a conversation. All Tech Saturdays are an open QSO of all subjects of Amateur Radio interest. All questions are welcome as well as a venue for hams to show off their latest ham radio projects or gadgets. Have a problem programming that HT, we can help! Not sure what radio or antenna to buy, we can help!

All Club Members who would like Clubhouse access to use its radio equipment would have to have some brief “Elmering” on the Clubhouse rules, such as using the alarm system, the A/C and heaters, the antenna system, and the radio equipment. The Club’s HF station is reserved for local use on Tech Saturday.

All are welcome - Hams and Non-Hams - Club Members and Non-Club Members.

New ZOOM Guidelines For General Membership Meetings

To enhance the experience for everyone attending the General Membership Meeting, whether in person or via Zoom, the Board of Directors has established some guidelines for Zoom participants. These guidelines are designed to ensure that everyone can focus on the meeting while also allowing Zoom participants to interact before the meeting starts.

Here are the guidelines:

- **Before the Meeting :**
  - Zoom participants are welcome to keep their cameras and microphones on to chat among themselves before the meeting begins. During this time, the Zoom audio will not be broadcast to the general audience, and local audio will not be connected to the Zoom meeting.

- **During the Meeting :**
  - Just before the Pledge of Allegiance, a reminder will be posted for Zoom participants to mute their microphones and turn off their cameras. This ensures that all Zoom participants will see the meeting camera instead of another Zoom participant's camera. Participants in the room never see the cameras of the Zoom participants.
  - Zoom participants can use the ***"Raise Your Hand"*** button to ask questions or make comments at appropriate times during the meeting. The Zoom operator will notify the moderator, who will recognize the comment or question at the right time.

- **After the Business Meeting :**
  - The Zoom audio will be muted immediately after the business meeting concludes to prevent any disruptions to the in-person audience from the PA speakers.

Please adhere to these guidelines to ensure a smooth and enjoyable meeting experience for everyone. Following these protocols will help us maintain an inclusive and focused environment for both in-person and remote attendees. Thank you for your cooperation!

There is a new website for the Gloucester County Amateur Radio Club Volunteer Examiner Team. Everything you need to know about getting your ham license or upgrading your license can be found on this website. Pass It Around!

https://veteam.w2mmd.org

So you find our website confusing, can't find anything, Well So Do I!!

I have created a page *(What, Not Another Page!!)* called "Quick Links"

On this page you will find "Buttons" to some the most popular pages
I will add more as time goes on, but I hope this helps your journey navigating through your Club Website!
https://gloucestercountyarc.weebly.com/quick-links.html

GCARC Monthly VE Exam Testing Summary - February 13, 2025

By Chris Prioli, AD2CS

The regular monthly VE session was held on 13 February at the W2MMD Clubhouse. There were three single exam candidates, two of whom were attempting to earn a Technician (Element 2) license, and the third was seeking an upgrade to Amateur Extra status. The session was attended by a total of 10 GCARC Volunteer Examiners. The Team Liaison for this session was **Chris Prioli AD2CS**.

The candidates, all of whom were successful, included :

- **Gregory W Anderson, KE2FAS – upgraded to Amateur Extra**
- **Richard S Danner, KE2FES (newly-issued call sign) – earned a Technician license**
- **Robert K McMeekin, KE2FEG (newly-issued call sign) – earned a Technician license**

All of the above candidates have since joined GCARC as full members, as approved at the February Board of Directors meeting.

The VE Team proctored an exam session using completely electronic methodologies. This means that the candidates completed the exams online, and that all grading and submissions were done online as well.

The GCARC VE Team that proctored the exam session included the following Volunteer Examiners :

- **Gary Reed, N2QEE**
- **John O'Connell, K2QA**
- **Mike Resnick, N2WOQ**
- **Rich Subers, W2RHS**
- **Court Smith, KD2SPJ**
- **Mike Thompson, KG4JYA**
- **Mike Harla, N2MHO**
- **Chris Prioli, AD2CS**

Ed Champion N2RO was also on site and was getting set up on the ExamTools platform.

The next regularly-scheduled VE session will be held on 13 March 2025, at 1900 hrs and at the W2MMD Clubhouse, as usual. The VE team will be using the new ExamTools system to its fullest capability, within our current technological means.

It is important to note that all test candidates going forward will be advised, whenever possible, to pre-register and pre-pay for the exam online. Specifics of that process will be forthcoming on the GCARC website as soon as possible.

Monday & Thursday Night 40 Meter Net @ 1930 Hours
7.235 MHz (+ / - 5 or 10 kHz)
NCS : Jim Clark, KA2OSV

W2MMD

www.facebook.com/W2MMD

twitter.com/w2mmd_gcarc

Facebook

Promotional Special for Ham Exam Classes

By Chris Prioli, AD2CS

Great news! For the next two sessions of the GCARC Ham Exam Preparation Classes, in celebration of our upcoming 10th session, we are offering a promotional incentive program in the hopes of enrolling some additional students for the sessions.

One of the stumbling blocks that seems to have cropped up lately is attrition in the student body during class sessions. In the last class session, all of the Element 2 (Technician) students had dropped out of the program before completing the job, and therefore did not earn a ham license. I am hoping that I can reverse that trend, and maybe even entice some additional students to sign up, in all Elements.

Towards that end, and for Session IX and Session X only (at this point), GCARC will reimburse the $15.00 test fee to any student exam candidate who successfully completes the training program and succeeds in passing the exam for the studied element in the first test sitting. The rules are as follows :

1. This promotion is valid only for Session IX (Spring 2025 session) and Session X (Fall 2025 session)
2. To qualify for the exam fee reimbursement, the student must
    A. Be present for at least eight of the ten classroom meetings
    B. Actively participate in the classroom training portion of the session
    C. Successfully pass the FCC exam for the Element studied in the class at the first formal attempt
3. This promotion applies to all Elements
4. Reimbursement is limited to one per individual student exam candidate per session
5. If a student exam candidate chooses to attempt multiple Elements during the same Session with testing events on different dates, only one of the exam fees will be reimbursed upon successful completion
6. If a student exam candidate taking an exam for a given Element passes that exam and then opts to attempt the next Element's exam during the same exam event, reimbursement will be made without regard to the outcome of the additional Element exam attempted
7. Reimbursement will be made via bank check issued by the GCARC Treasurer upon inclusion of the new license status in the FCC ULS database
8. Total reimbursement, which includes any reimbursement from other sources, will in no case exceed the maximum $15 fee charged for the exam
    A. In the event of a youthful candidate who receives the ten-dollar fee reimbursement from ARRL, the GCARC reimbursement will be limited to the five-dollar difference between the total exam fee and the ARRL reimbursement

For information regarding scheduled session dates, please refer to the License Classes page on the GCARC website **(https://gloucestercountyarc.weebly.com/license-classes.html)**, or in this issue of CrossTalk. Answers to any questions that may arise can be had via an e-mail to me at the email address on the GCARC roster.

"Dinner @ The W2MMD Clubhouse"
Wednesday, March 26, 2025 @ 1800 Hours
W2MMD Clubhouse

Gloucester County Amateur Radio Club
YouTube Channel
https://www.youtube.com/@W2MMD

FT8 Super-Fox Mode Is Now In Official WSJT Release

By Jim Wright, N2GXJ

You may recall the mention of "super fox" mode for WSJT's FT8 in our September 2024 Crosstalk, with tips and tricks along with step-by-step setup description and pictures related to this mode added to our w2mmd.org web site as a super fox update for rc7, which you can find linked here :
https://gloucestercountyarc.weebly.com/digital.html

These are features that are now available in the "GA" version of WSJT-X 2.7, now available at :
https://wsjt.sourceforge.io/wsjtx.html

There are other goodies and bug fixes in this 2.7 version as well. You can check out all the details in the wonderfully updated user guide on the sourceforge site. For the digital enthusiasts and experimenters out there, good DX to all!

New Members Support Group & Discord Channel

- **Organized By Jim Beury, KE2DRN**
- **Objective : To focus Club resources on the needs of newly licensed members**
- **Supported by "new_members" Discord Channel**

Additional Support :

- **Saturday Morning @ The W2MMD Clubhouse**
- **GCARC@MAILMAN.QTH.NET Club E-mail Reflector**
- **E-Mail President @ w2mmd.org**

Need a ride to a Club meeting, event, or activity?

Just send a message to the Club's e-mail reflector asking if a member can pick you up

GCARC <*at*> MAILMAN <*dot*> QTH <*dot*> NET

All Club members have access to this FREE e-mail service

NTS Resources

The National Traffic System® (NTS) is a network of Amateur Radio operators who move information during disasters and other emergencies. General messages offering well wishes also move through the NTS to help test the system and to help Amateur Radio operators build traffic handling skills. While the NTS is primarily set up to serve the United States and Canada, it is possible to move traffic internationally through the NTS through various local, regional, area, and international network connections.

- **NTS 2.0 : https://nts2.arrl.org**
- **NTS Manual : https://www.arrl.org/nts-manual**
- **NTS Methods and Practices Guidelines Table of Contents : https://www.arrl.org/table-of-contents-nts-methods-and-practices-guidelines**
- **Handling Instructions : https://nts2.arrl.org/hx-handling-instructions**
- **Numbered Texts : https://nts2.arrl.org/numbered-texts**
- **Form Encoding Rules for Form : https://nts2.arrl.org/form-encoding-rules-for-forms**

DAs and DITs

>> **Karl Frank, W2KBF**, Reports on February 12, 2025, the **Fair Lawn Amateur Radio Club** facilitated a contact between students in Clifton, NJ with the ISS : **https://www.youtube.com/watch?v=ESsD1xES-s0**

>> **Don Martel, N2SPW**, Reports on ***LegiScan.com***, a tracking monitor for viewing the progress of legislation in Congress and all 50 states. You can set alerts to get updates emailed to you when action is taken on a particular bill.

Membership Badges Ready For Pick-up.

They can be picked up at the W2MMD Clubhouse or at the monthly General Membership Meetings

Dave Danichkin, KD2UXC
Jim Foster, W3JNF
Deirdre Hebert, AD2GQ
Ronald Jackson, KE2CJB
Bob Jensen, KC3WWL
Ben Johnson, NE2R
Calvin Keller, N2YMS
John McGonigle, KC3ZJX
Jack Snyder, AI2D

Gloucester County Amateur Radio Club Elmers

We are still looking for some more Club Elmers. If you would to add your name to the Elmer's List, send your specialty to w2mmdgcarc@gmail.com. Here is what we have so far :

- **Tony Starr, K3TS : Antenna Construction; Contesting; CW Help and Training**
- **Ken Bozarth, KN2U : Antennas**
- **Jeff Welsh, KD2AZI : Boat Anchor Repair & Operation; Raspberry Pi; Arduino; Python; POTA; Mobile Installation & Operating**
- **Karl Frank, W2KBF : Digital Messaging (FLDIGI, WinLink)**
- **Lenny Rust, W2LJR : DMR Radios & Programming**
- **Ron Block, NR2B : Lightning protection & grounding**
- **Chris Prioli, AD2CS : Kit Building; Antenna Building; Radio Programming; PC and Electronic Troubleshooting; Ham Radio Licensing & Studying**
- **John Zaruba Jr, K2ZA : Yaesu System Fusion Radio Programming; POTA; SOTA; CW Learning & Operating**
- **Jerry Barnish, K2EAB : Radio Astronomy**
- **Mike Thompson, KG4JYA : Radio Astronomy; VARA (HF and FM); WinLink**
- **Steve Farney, W2SEF : WSJT-X; FT-8; LoTW; TQSL; Grid Square**
- **Carl Wittig, N2CRW : Audacity® Audio Editor**
- **Gary Mirkin, WA3SVW : FLDIGI; MMSSTV**
- **Jon Pearce, WB2MNF : Satellite Communications**
- **Frank Romeo, N3PUU : Toilet Installer; Jack-Of-All Trades - Master Of None**
- **John Hill, W2HUV : Local & Remote W2MMD HF Station Operation; Training & Support**
- **Dave Sheppard, W2PAX : National Traffic System**
- **Bob Pantazes, W2ARP : How To Manage QSL Cards Properly**

A Couple Dozen Good DX Months Remaining?

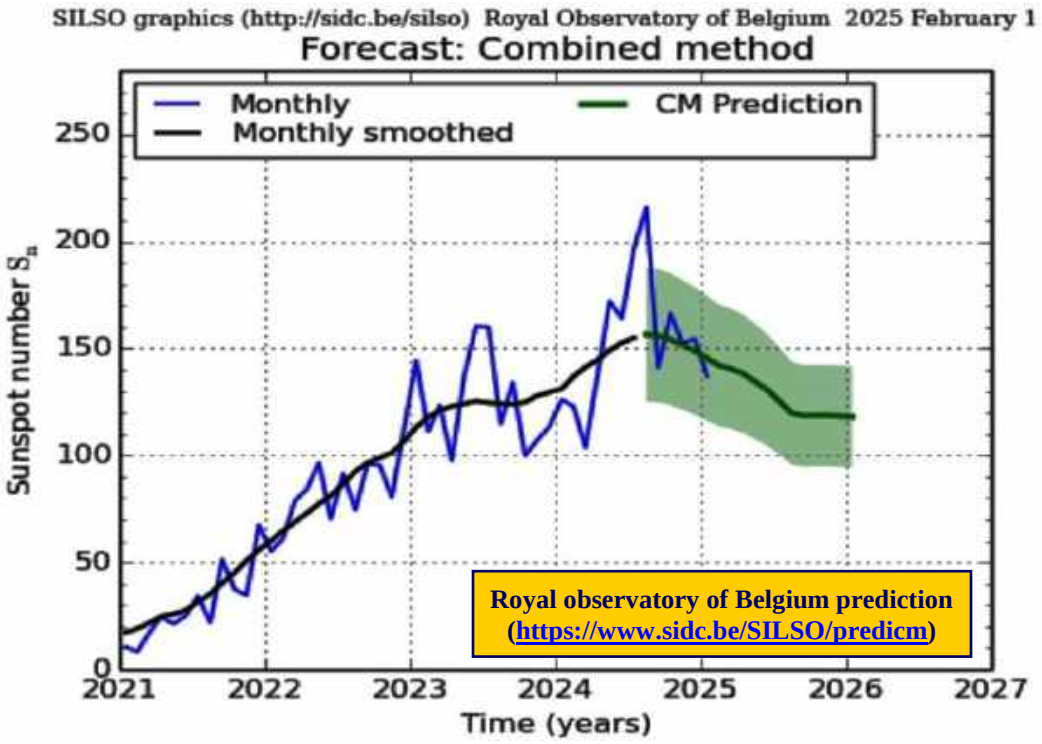
By Jim Wright, N2GXJ

Given that we can make use of all the bands 80-10 meters on our HF radios today, it was sobering to me to look back on the article titled "When will thinks pick up on HF?" in the September 2016 issue of CrossTalk. In this article, the author bemoaned that his radio could do 15 meters, 17 meters, 12 meters, and 10 meters, but when he turned to these bands to check, there was nobody there. What a waste! HF conditions on the upper bands, which had been good prior to then, were not anymore. Being new to HF at that time, he'd not experienced what the old timers called "solar minimum" before. This was just the start, and it was not that much fun.

In a case of looking at history to help predict the future, back then we went from having no days without sunspots seen on the sun in 2015 to having 32 days in 2016. Solar conditions for HF were starting to drop off by then, and it got worse for HF after that. In 2017, there were 104 spotless days. In 2018, there were 221. In 2019, there were 281. In 2020, there were 208. It wasn't until 2021, a full 5 years after that 2016 article, that we started to see the sunspot counts go up again, with much improved HF-DX conditions that have lasted from 2022 through 2024, and into 2025.

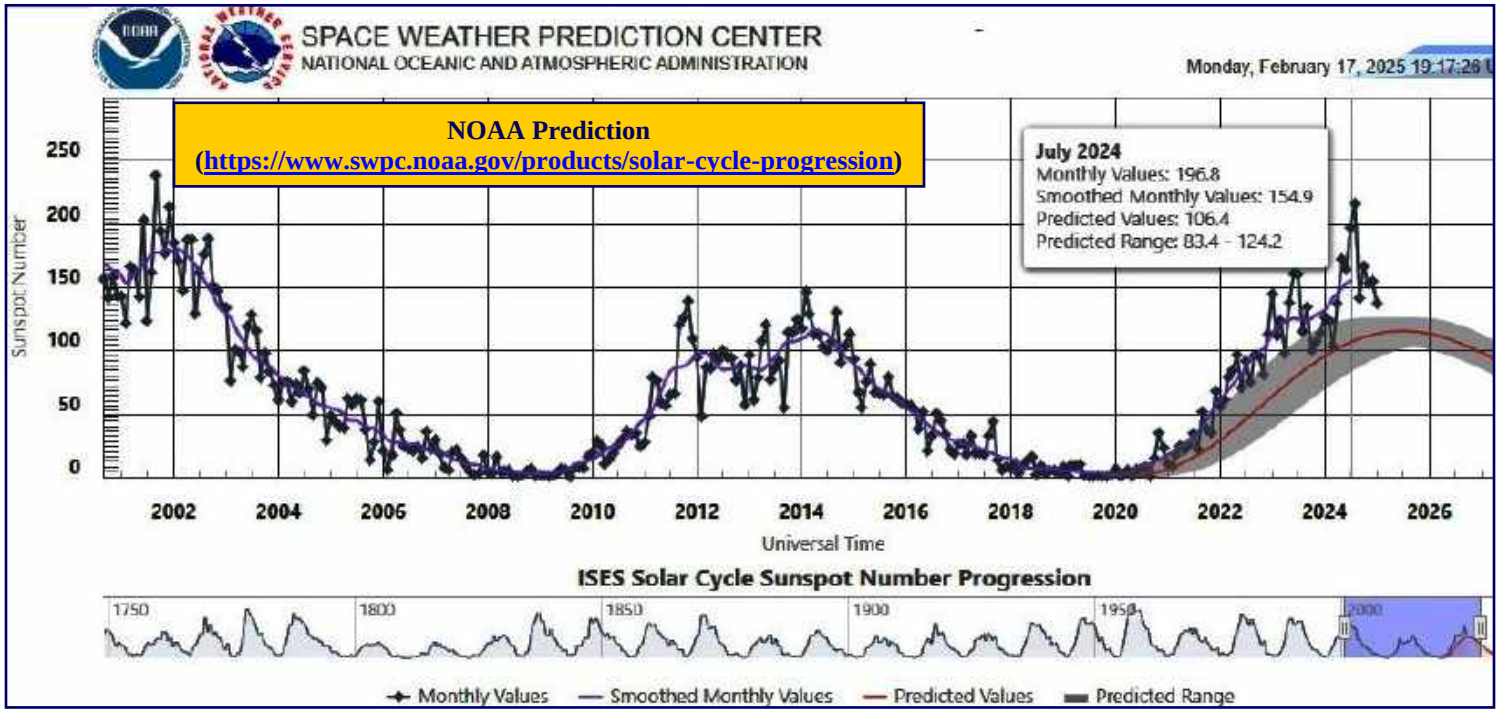
So here we are now in early 2025, some 9 years after that 2016 article. Though we are blessed by a continuation of the good DX conditions on HF that we've had for the past few years, with no spotless days recorded yet, we all know this is cyclic. Soon enough, those solar conditions will be changing and the good times that we are rolling in now won't be rolling so well anymore. Though we don't know for sure when, there are predictions as to when things will roll off after the peak. Data and historical patterns suggest that we are either at, or have just passed the peak of the current solar cycle. If that is true, poorer HF conditions, like those experienced and written about in that 2016 CrossTalk article, are predictably only a couple dozen of months away.

Do you see things differently? Here's prediction data from the Royal Observatory of Belgium, and from NOAA's Space Weather Prediction Center to compare with. See what you think. Either way, let's all enjoy the good upper band DX on HF while it is still here!



Couple Dozen Good DX Months - Continued on page 12

Couple Dozen Good DX Months - Continued from page 11



Volunteer Monitor Program Report - December 2024

The Volunteer Monitor (VM) Program is a joint initiative between ARRL and the FCC to enhance compliance in the Amateur Radio Service. This is the December 2024 activity report of the VM Program.

- A commendation was issued to an amateur in Simpsonville, South Carolina, for exceptional operating skills and courtesy on 7.210 MHz in October 2024. A commendation was issued to an operator in Etna, Wyoming, for exceptional net control operation and courtesy in the Wyoming Cowboy Net meeting on 3.923 MHz in September 2024.
- Technician-class operators in Mississippi, Maine, and Florida received advisories for FT8 operation on 20 meters. Technicians have no operating privileges on 20 meters.
- Operators in Louisiana and Arizona received advisories for operation with expired licenses.
- A Technician-class operator in Texas received an advisory for FT8 operation on 17 meters. Technicians have no operating privileges on 17 meters.
- A Technician-class operator in Florida received an advisory concerning FT8 operation on 15 meters. Technicians have only CW privileges on 15 meters.
- An operator in Ohio received an advisory for extended transmissions on 40 meters with no FCC required identification.
- An operator in Virginia received an advisory for deliberate interference and harassment on 3.933 MHz in October 2024 and was advised of the FCC forfeiture amounts for such operation. The operator was also advised that such operation would be an issue in any license renewal proceeding.
- There were two case referrals from the FCC to the Volunteer Monitor Program, and there was one FCC meeting regarding interference.

The totals for November 2024 monitoring were 1,527 hours on HF frequencies, and 1,835 hours on VHF frequencies and above, for a total of 3,362 hours.

Thanks to Volunteer Monitor Program Administrator Riley Hollingsworth, K4ZDH

Fox Hunt 32 : Winter Fox Hunt Family Fun

Another GCARC Fox Hunt (hidden transmitter hunt) was held on Sunday, February 23, 2025. It was a beautiful Sunday afternoon in Gloucester County. We had six hunters, listed in the order that they found the Fox:

1. **Frank Romeo, N3PUU and Kathy**
2. **Jim Wright, N2GXJ**
3. **Diane Amico, W2WHD, First time hunting!**
4. **Bruce Canino, KD2LBU**
5. **Vinnie Sallustio, N4NYY**
6. **Karl Frank, W2KBF**

The Fox was hidden at Chestnut Branch Park in Barnsboro, NJ. It only took about 45 minutes for all hunters to find the Fox. Be sure to come out for our Spring Fox Hunt that we will announce in a few months.

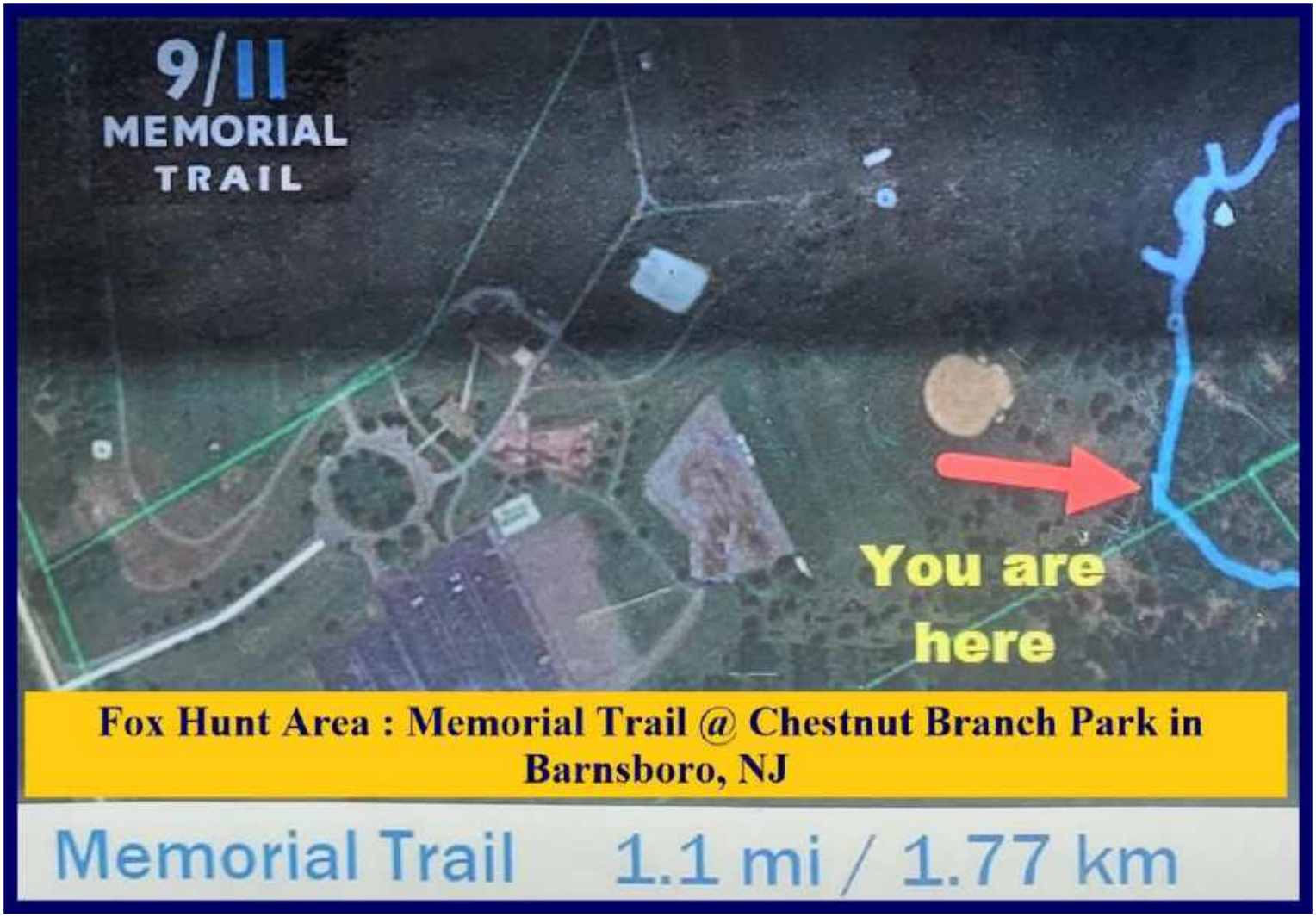
Bruce Canino KD2LBU, Karl Frank W2KBF, Al Arrison KB2AYU, Jim Wright N2GXJ, Frank Romeo N3PUU, Vinnie Sallustio N4NYY, Diane Amico W2WHD
Not pictured : Kathy Romeo

Fox Hunt 32 - Continued on page 17

"Ask not what your Club can do for you, Ask what you can do for your Club"
- KA2OSV

Fox Hunt 32 - Continued from page 16

More pictures on https://gloucestercountyarc.weebly.com/fox-hunt-32.html



Flashing The OpenGD77 Firmware Onto A Baofeng DM-1701

By Stan Slachetka WA2JRZ

Note - this was originally an email sent to Jon Pearce WB2MNF, who reorganized it for CrossTalk.

I was able to flash the GD77 firmware onto the Baofeng DM-1701, with some exploring and adventures before it worked.

Much of it had to do with working in Windows 11 and also having to fill in a few of the "blanks" to identify all the software and files that I needed to download to make things work.

First, thanks to Chris for clueing me into the need to right click on the CPS installer file to be able to correctly open and run the file. Here is the error message I was getting : **See Figure 01**

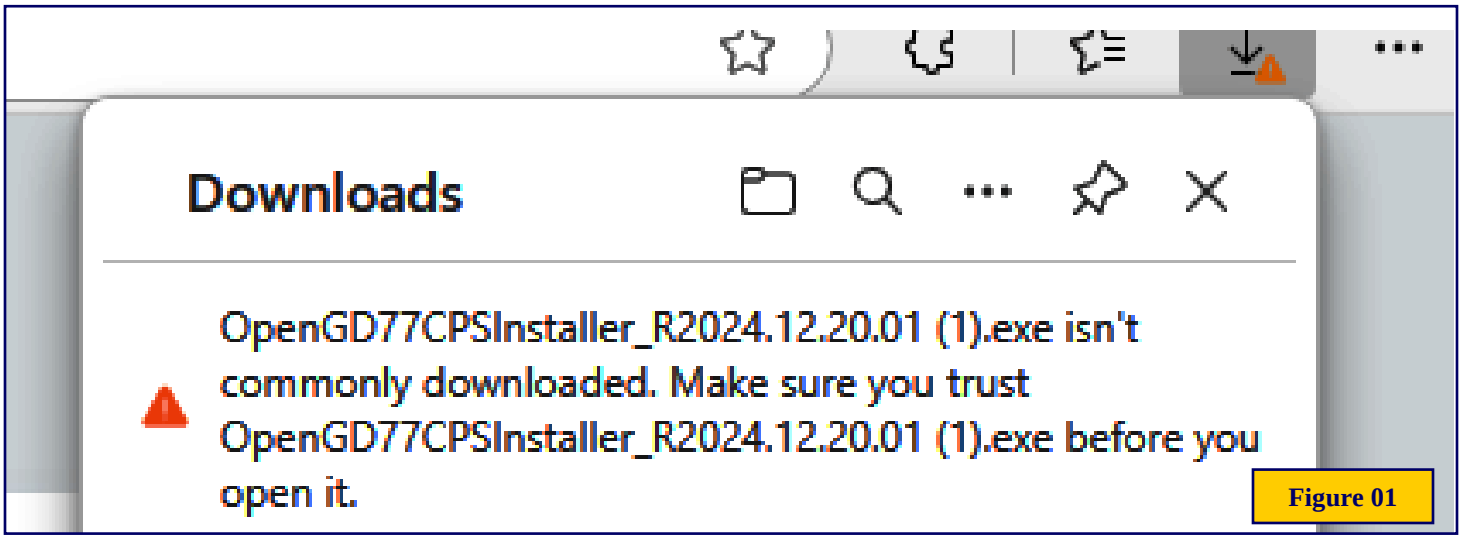

Downloads
OpenGD77CPSInstaller_R2024.12.20.01 (1).exe isn't commonly downloaded. Make sure you trust OpenGD77CPSInstaller_R2024.12.20.01 (1).exe before you open it.

Figure 01

I needed to right click on the file and then click on "Always keep on this device" and then confirm that I wanted to trust the file before it loaded as an executable file. I assume someone running Windows 10 wouldn't have this problem.

My first mistake was to use the following link : **[HOWTO] Flash the OpenGD77 firmware (new procedure) - OpenGD77 (https://www.opengd77.com/viewtopic.php?f=5&t=1770)**

This one told me only part of the story that I needed to know. I should have used the following link provided in one of your emails : **TYT MD-UV380/390 / RT-3S / DM1701 Installation information - OpenGD77 (https://www.opengd77.com/viewtopic.php?f=19&t=2380)**

Not only did I need to download the CPS installer, but I needed to download ***two additional files*** : the DM1701 and the MD9600 V5 ***"donor"*** firmware"

OpenGD77 installation (from the DM1701 installation information link above) :

- Download and install the latest OpenGD77CPS from here : **https://www.opengd77.com/downloads/PC_CPS/Latest**
- Download the latest firmware version from here : **https://www.opengd77.com/downloads/MDUV380_DM1701/Firmware/2dc33f6bcb4936c047a4f65ef3daf80f95ffbc0e**
    - Look for the following Zip folder : ***OpenDM1701.zip***

Flashing OpenGD77 Firmware - Continued on page 19

Flashing OpenGD77 Firmware - Continued from page 18

- In the extracted folder, look for the following file : ***OpenDM1701.bin***

- Download the official MD9600 V5 firmware, as the 'donor' from here : **https://www.passion-radio.com/index.php ... chment=760**.
  - Look for the following Zip folder : ***210525 MD-9600 V4 firmware for PLL2571***
  - In the extracted folder, look for the following file : ***MD9600-CSV(2571V5)-V26.45.bin***

Both firmware files need to be available on your computer. (This is not obvious from some of the YouTube videos that are available online) The files need to be extracted from the Zip folders downloaded from the referenced links and copied onto your computer. I set up a DMR folder for all these files. Note that if you move the files you will need to find them again.

The firmware loader is accessed in the ***"Extras"*** drop down menu in the CPS program.

Hint : However, to be able to select the DM-1701 in ***"Firmware loader"*** in the ***"Extras"*** drop down menu you need to make sure you select the second drop down item in the ***Radio type*** drop down menu : **See Figure 02**

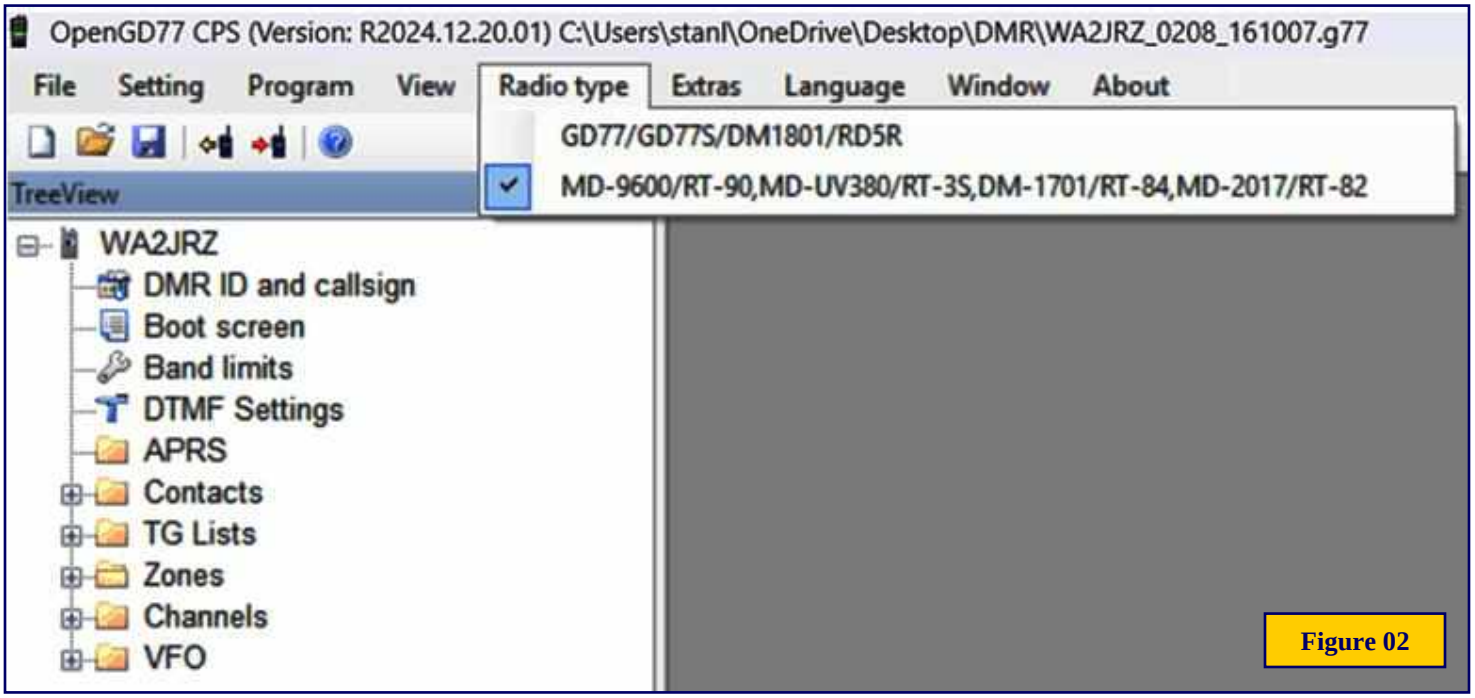


Figure 02

Once you open the firmware loader dialog box, you have to click on ***"Select official firmware (donor) file".*** If you don't have this file available on your computer, the Firmware Loader dialogue box will show only [FM] and not [+DMR]. **See Figure 03**.

The "Select Open firmware file & update" button will be grey until you select the donor file. Assuming that you found and selected the donor file on your computer, you will get the following message : **See Figure 04**.

You can now click on the ***"Select open firmware file & update"*** button and find and select the DM1701 firmware you downloaded.

When searching for the OpenDM1701.bin file you need to make sure you select ***"Legacy firmware files"*** from the drop down menu in the lower right corner of the dialogue box, otherwise, you won't see the file when you search in the OpenDM1701 folder. (No one mentions this in any of the instructions!). **See Figure 05**

Flashing OpenGD77 Firmware - Continued on page 20

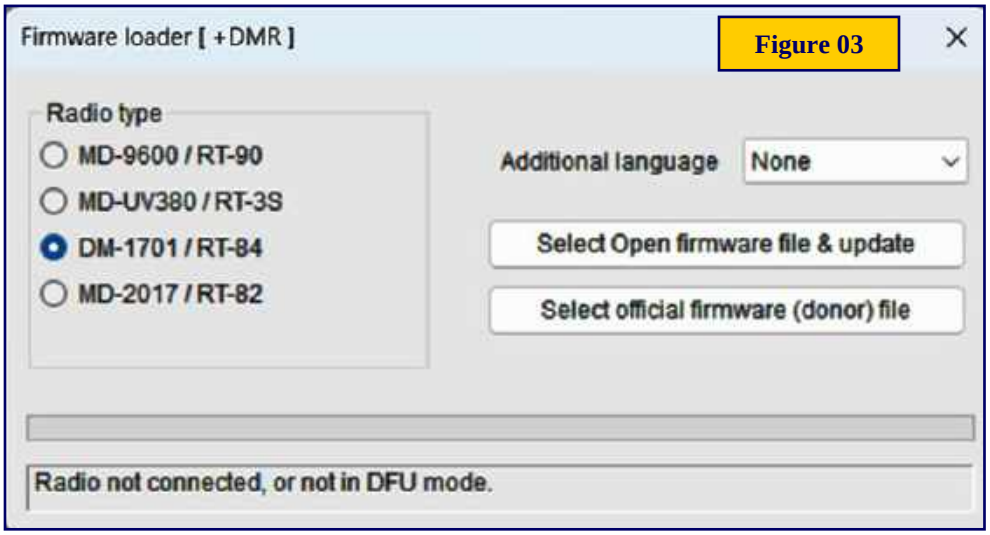
Flashing OpenGD77 Firmware - Continued from page 19

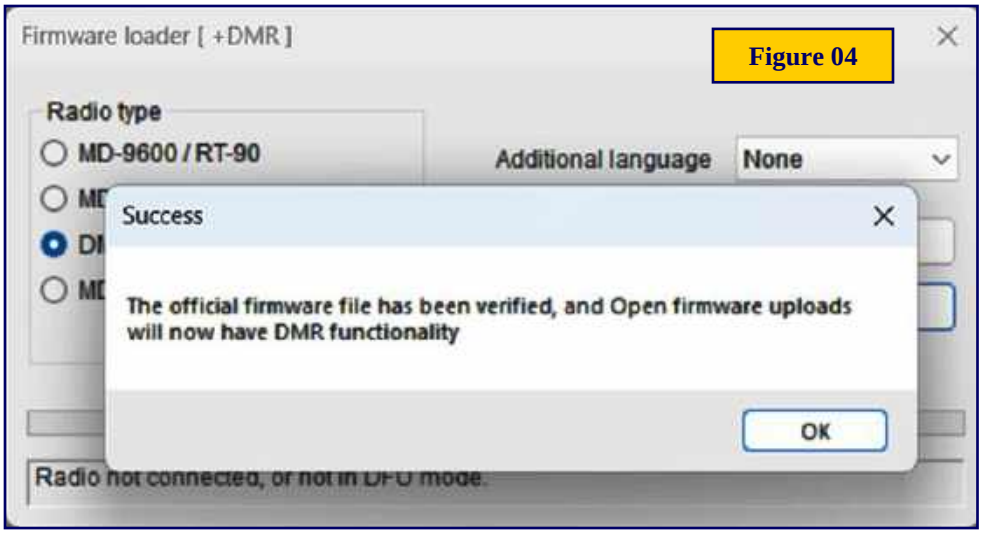
Assuming that you have followed these steps and have the DM-1701 radio connected to the computer you should see the firmware update and then get the following on **Figure 06**

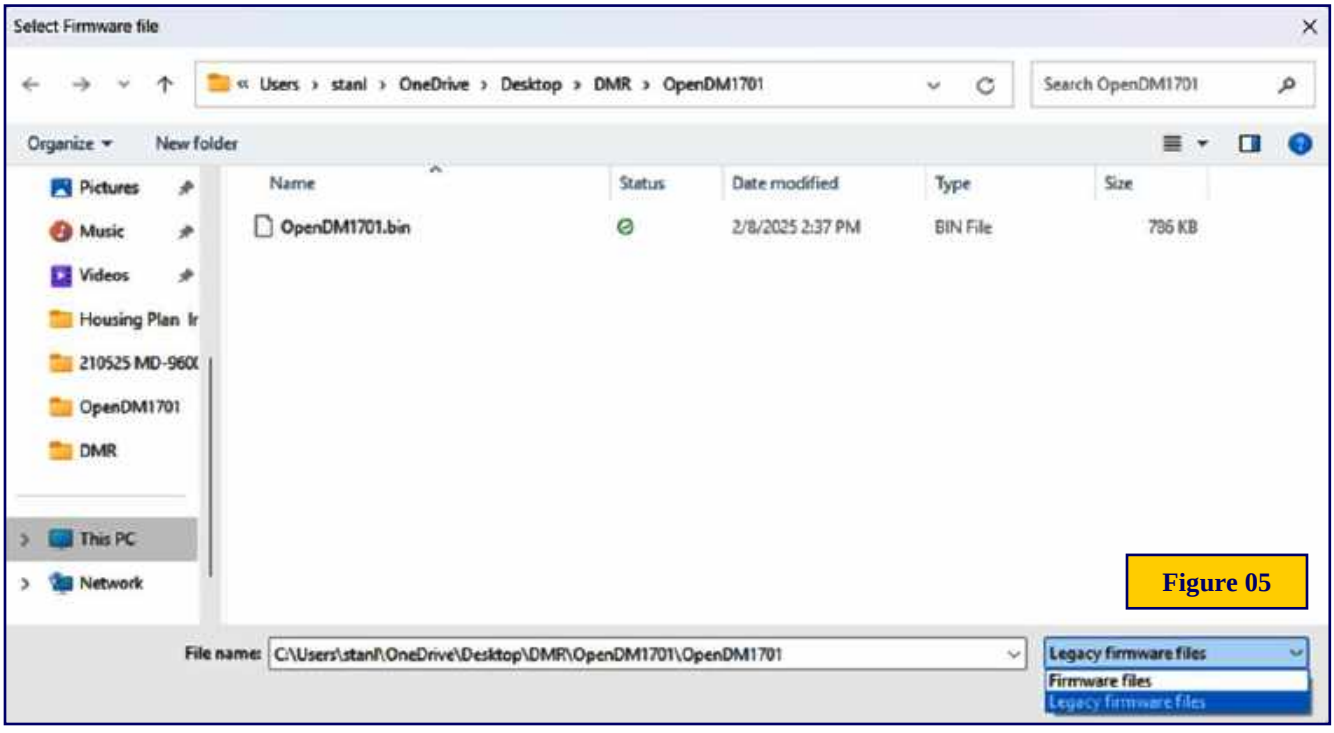
Ah, yes...connecting the radio to the computer. I found some additional issues.

At first I was continuing to get the error message that the radio was not connected or in DFU mode even though I had it in DFU mode and it was connected to the laptop with the programming cable.

Checking around, I found out that I needed to install the correct driver for the radio. Without getting into too much detail about that search, I was able to find a Windows 10 version of the driver. I loaded the 64 bit version yet still could not find the radio in my Device Manager.

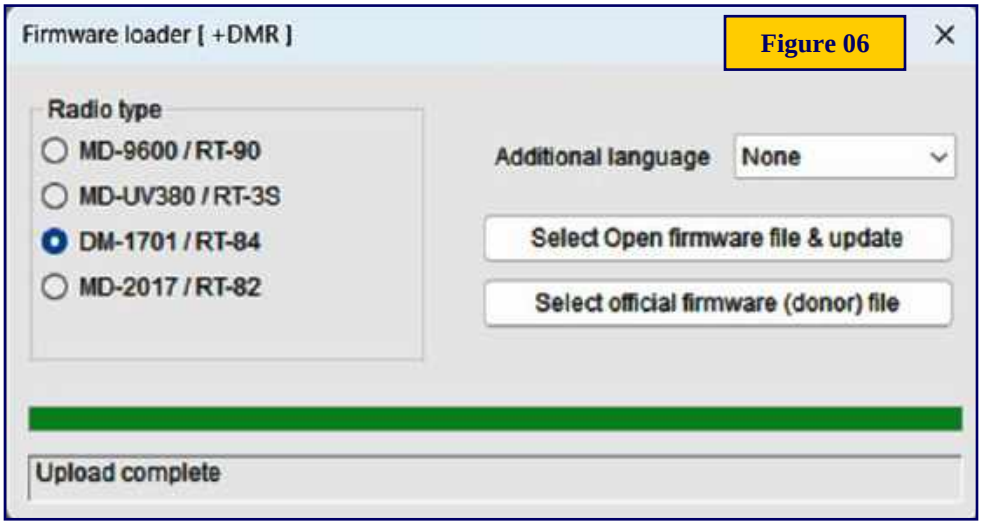



Firmware loader [+DMR]
Figure 04
Radio type
MD-9600 / RT-90
Additional language
None
Success
The official firmware file has been verified, and Open firmware uploads will now have DMR functionality
OK
Radio not connected, or not in DFU mode.

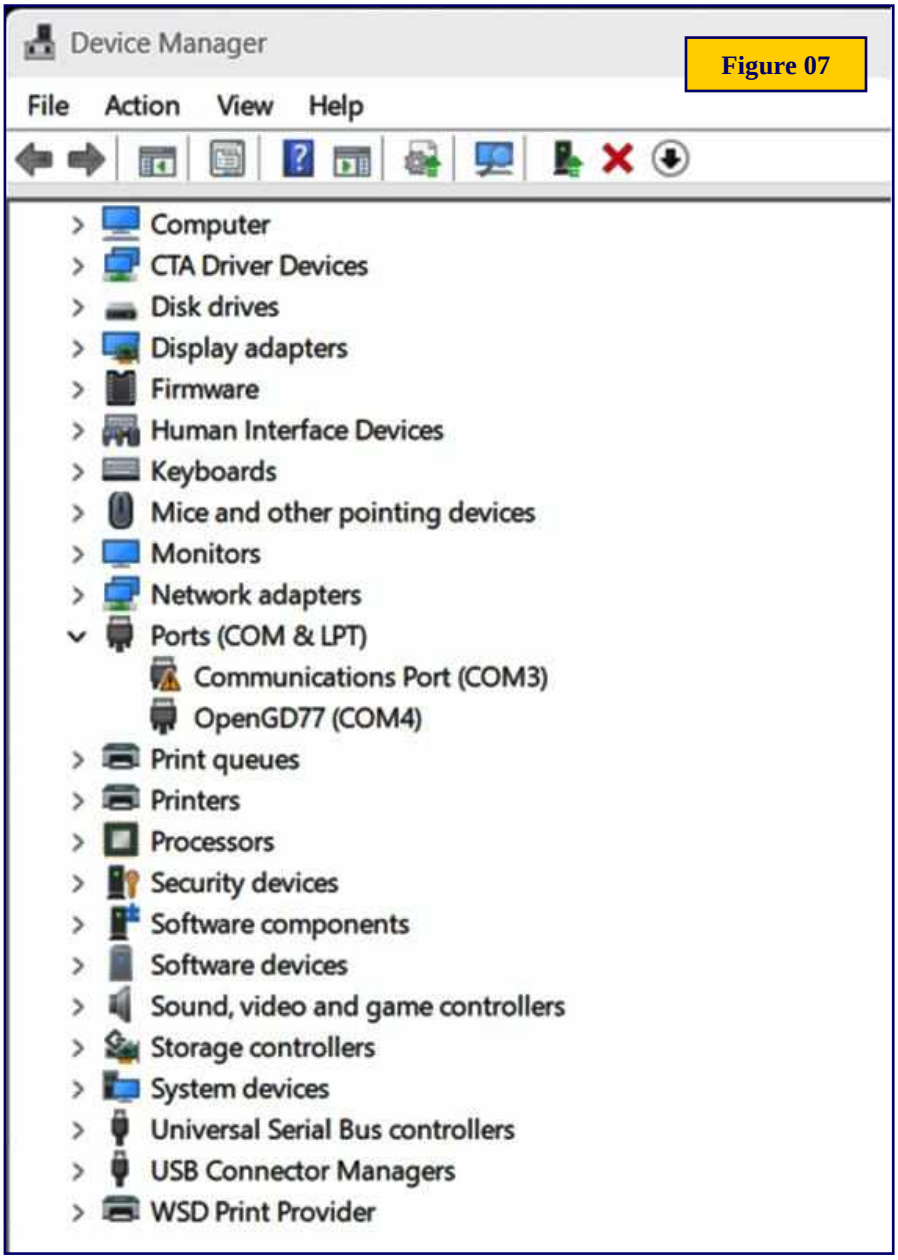


Flashing OpenGD77 Firmware - Continued on page 21

I can get into more detail about that if someone needs assistance with the driver issue.



According to the available YouTube videos the radio was supposed to appear as ***STM Device in DFU Mode*** under ***Universal Serial Bus Controllers*** but no luck. Out of curiosity, I switched the programming cable from the USB port on the left side of the laptop to the one on the right side and ***eureka!*** it appeared not under Serial Bus Controllers, but as ***OpenGD77*** in ***Com4*** under ***Ports***. Not sure why that worked as they are both USB 3.0, but I am glad that it did. **See Figure 07**



I was then able to flash the radio. I'm not sure if I actually needed the driver, but it did work.

The Education Connection

By Chris Prioli, AD2CS - chris@ad2cs.com
www.ad2cs.com

March 2025

Well, the NanoVNA Exploration class is now behind us, and it was, all things considered, an unqualified success. While all seats were sold, not all registrants actually made it to the classes, but that is often unavoidable. The participants received a large array of items as a part of the class, and I still owe them some computer-type items. I promised some links to various informative sites related to the NanoVNA, and I am still putting all of that together.

The materials that the participants received included :

- **Custom-made filter board**
- **Standard NanoVNA RF demonstration board with (2) SMA x IPEX cables**
- **Pair of 12" RG-174 SMA-M x dual alligator clip test leads**
- **Pair of SMA thumb wrenches**
- **12" RG-316 SMA-M x SMA-M test cable**
- **Untuned ground-plane antenna**
- **Some printed materials**

The students were left with a final challenge - to identify the specific frequency for which the filters on the custom board were designed. To date, I have not had any responses to that challenge. I am still hoping that somebody will answer the question.

Enough about that. Now let's talk about another topic… the upcoming GCARC Ham Exam Preparation Classes Session IX, slated to kick off with the Element 2 group on Monday, 31 March 2025. There are still plenty of seats available, for all three Elements. If you have been putting off that upgrade to General or to Amateur Extra, put it off no longer. Now is the time to enroll in one of our license classes. Remember too, that for this and the next session, GCARC is rebating the $15 (fifteen dollar) ARRL test fee to those students who attend at least eight of the weekly classes, and then pass the exam on the first attempt. This promotion will not last forever so take advantage of it now. **Complete rules for this promotion are published on Page 11**.

Anyone who is interested in attending a licensing class, please visit the License Classes page of the GCARC website **(https://gloucestercountyarc.weebly.com/license-classes.html)** and complete the enrollment form found there. Submit the form and I will receive it in my email inbox. Then, go ahead and pay the registration fee of $35 by submitting that amount to ***education@w2mmd.org*** via PayPal. Doing so will hold your seat in the class of your choice. **See schedule on Page 53**.

Finally, I would like to mention the fact that there is an upcoming class on CHIRP programming scheduled for the morning of 1 March 2025, at the W2MMD Clubhouse, at 0900 hrs. It should not go much past 1000 or 1015, though personal individual programming assistance will be available afterwards.

That's it for now… See you next month!

7th Annual ARRL SNJ Section Convention

Presented By The

Gloucester County Amateur Radio Club
W2MMD

Celebrating Our 66th Year

www.w2mmd.org

Open To The Public At 8:00 AM : *Rain or Shine*

47th Annual Hamfest : Sunday, September 7, 2025

ADMISSION : $10.00
Non-Ham Spouses and Kids FREE

Vendors and Tailgaters of new and used radio and electronic equipment

ADIF Logs Wanted When Operating As W2MMD @ The Clubhouse

By Jim Wright, N2GXJ - Contact me via e-mail on Club Roster List

It is a common courtesy in ham radio to be able to QSL 2-way contacts made with other hams. We're pretty good about doing this for our field day contacts made each year, but are falling behind in this for contacts we make from the Clubhouse as W2MMD.

So here is the ask :

If you operate from the Clubhouse as W2MMD (e.g. on HF, UHF/VHF, or on Satellite, at Tech Saturday, or during contests or other), please email me the electronic log entries in ADIF format from the logger program you used for those contacts?

That way, just like I do following field day each year, I can get them uploaded to LOTW and to eQSL to offer the courtesy of an electronic QSL to those who make contact with us as W2MMD here in NJ.

Thank you

Tuesday AfterNoon Net @ 1200 Hours

Net Control Stations :
Steve Farney, W2SEF; Rich Subers, W2RHS,
Greg Ciraula, K3GC; & Jeff Garth, WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks

Greg Ciraula, K3GC : March 4, 2025
Steve Farney, W2SEF : March 11, 2025
Rich Subers, W2RHS : March 18, 2025
Jeff Garth, WB2ZBN : March 25, 2025

Greg Ciraula, K3GC : April 1, 2025
Steve Farney, W2SEF : April 8, 2025
Rich Subers, W2RHS : April 15, 2025
Jeff Garth, WB2ZBN : April 22, 2025
Steve Farney, W2SEF : April 29, 2025

If you would like to be a Net Control Station for this net, please contact Steve Farney, W2SEF

Tuesday, March 4, 2025

Thursday Night Rag Chew Net @ 2000 Hours

Net Control Stations :
Mary Delemarre, W2TDS; Gary Mirkin, WA3SVW;
Steve Farney, W2SEF; & Jeff Garth, WB2ZBN

147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

Here is the schedule for the upcoming weeks :

Jeff Garth, WB2ZBN : March 6, 2025
Mary Delemarre, W2TDS : March 13, 2025
Gary Mirkin, WA3SVW : March 20, 2025
Steve Farney, W2SEF : March 27, 2025

Jeff Garth, WB2ZBN : April 3, 2025
Mary Delemarre, W2TDS : April 10, 2025
Gary Mirkin, WA3SVW : April 17, 2025
Steve Farney, W2SEF : April 24, 2025
Jeff Garth, WB2ZBN : May 1, 2025

If you would like to be a Net Control Station for this net, please contact Jeff Garth, WB2ZBN

Gloucester County Skywarn Net

The Gloucester County Skywarn Net is held every Sunday @ 1930 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All Are Welcome To Participate

Net Control Stations : Charlie Wahl, KC2STO & Jeff Garth WB2ZBN

Gloucester County ARES Net

The Gloucester County ARES Net is held every Sunday @ 2000 Hours on the 147.180 MHz (+) (131.8) Repeater & EchoLink W2MMD-R

All are welcome to participate

Net Control Stations :
Steve Farney W2SEF, Bob Keogh KD2NEC, Karl Frank W2KBF, Al Arrison KB2AYU, Gary Mirkin WA3SVW, Greg Ciraula, K3GC, & Todd Woodward KD2ESH

Al Arrison KB2AYU : March 2, 2025
Karl Frank W2KBF : March 9, 2025
Bob Keogh KD2NEC : March 16, 2025
Gary Mirkin WA3SVW : March 23, 2025
Steve Farney W2SEF : March 30, 2025
Todd Woodward KD2ESH : April 6, 2025
Al Arrison KB2AYU : April 13, 2025
Steve Farney W2SEF : April 20, 2025
Greg Ciraula, K3GC : April 27, 2025

Anyone who is interested in joining the Gloucester County ARES Team, is invited to contact Bob Keogh at KD2NEC @ QSL.NET

ARRL Learning Center

https://learn.arrl.org

Discover how to make Amateur Radio your own.

Online courses from the ARRL Learning Center provide ARRL members with additional instruction and training for getting on the air, emergency communications, and electronics and technology

Current Website Updates : Go to this page to find out the latest changes & updates on our W2MMD Website

https://gloucestercountyarc.weebly.com/current-website-updates.html

At The Repair Bench…

A monthly column describing a recent repair bench event.

By Chris Prioli, AD2CS - chris@ad2cs.com - www.ad2cs.com

Yaesu FT65 HT Dual-Band Transceiver - March 2025

Sometimes, repairs will come in that are not actually "repairs" at all, although they seem to be to the owner of the equipment of concern. That was exactly the situation with a recent "repair" to a **Yaesu FT-65 Handheld Dual-Band Transceiver (Figure 1)**.

The unit was brought to me during the 2024 Hamfest, and its owner demonstrated that the transceiver would apparently not transmit when the PTT switch was activated. There is some history of these radios losing microphone connectivity, especially after being dropped, so I agreed to take a look at the unit.

When I put it on the bench, I attempted to verify the complaint, as I normally do. The radio was tuned to 147.180MHz, and it was set in the automatic repeater mode with the correct offset, so when keyed, the display showed full power and a frequency of 147.780MHz. Further, the CTCSS tone was set to 131.8Hz, the correct value for the repeater to which the radio was tuned. Sure enough - although the radio showed full signal output on the LCD panel, nothing was received and passed on by the repeater.

However, the fact that the repeater was not responding was not conclusive that there was no radio RF output… just that it was not making the trip through that repeater. I decided to experiment a bit, and I set the radio to transmit on a separate simplex frequency outside of the normal repeater frequency range. Immediately, the signal was received by a nearby receiver tuned to the same simplex frequency. This conclusively showed that the radio did in fact produce an RF output and put it on the air.

That fact caused me to look more deeply into the various settings in the repeater configurations of the radio. The first thing that I did was to connect the radio to a PC via a programming cable and back up the existing configuration. Then, I took a look at what was shown in the downloaded data from the radio. What I found was surprisingly simple… the squelch mode was set to "OFF".

I disconnected the radio from the PC and went into the menu system to make some changes manually. As soon as I set the squelch mode to "TSQL" (tone squelch), the unit came up as expected on the repeater.

I tested a bit further by programming in some additional repeaters and testing them. All, of course, worked properly and the signal was successfully received and repeated by each of the test repeaters so programmed. I then cable-connected the radio again and did some programming via the PC… enough to once again verify proper operation of the radio on both the VHF and the UHF bands.

At The Repair Bench - Continued on page 27

At The Repair Bench - Continued from page 26

To finish up after all of the testing was complete, I reset the radio to factory settings and then re-programmed the frequencies that were in memory when I received the unit by restoring the backed-up configuration to the radio. Finally, I once again manually set the TSQL value again, and the job was done.

This was a case of simple mis-configuration of the radio. Interestingly enough, the owner, in a subsequent conversation, informed me that he had just obtained a programming cable for the radio, and would be programming the set via his computer when he got the radio back. Had the original programming been done via the computer instead of being done manually, where each separate step must be accomplished individually, the problem most likely would not have occurred. Setting the squelch mode is a routine component of the computerized programming process.

So then… what is the primary "take-away" from this story? If anything, it is that the devil is in the details, and that we cannot assume a malfunction just because we do not immediately get the results that we anticipate. When things do not seem to work properly, go back to basics and check everything, especially all modes of operation that are available. It may well turn out that there is no actual failure.

Sunday, March 9, 2025
@ 0200 Hours

GCARC TechNet ZOOM Forum

GCARC TechNet ZOOM Forum is scheduled to be available every Monday Night until December 29, 2025.

There will not necessarily be a topic scheduled every Monday Night, but the opportunity is available to schedule succeeding topics of interest on consecutive Monday Nights.

Every Monday @ 1930 Hours

Date &Forum Topic : See e-mail and website for more information

Go to : https://gloucestercountyarc.weebly.com/gcarc-technet.html
for TechNet Information Resources and ZOOM Instructions

Meeting ID : 933 9943 3123 ; Passcode : 800835
Join ZOOM Meeting Link : https://bit.ly/3K8bWwj

Artificial Intelligence Applications In Ham Radio

By Jon Pearce WB2MNF

As artificial intelligence begins to pervade many parts of our lives I have found increasing uses for it in ham radio. It lets me find solutions to problems, catalog and retrieve information more easily, and communicate better. The AI tools are getting far better and more relevant, and it's worth becoming familiar with several of them if you want to save yourself a lot of time. All of these programs are accessible thru a web browser so it doesn't matter the type of computer that you have, and many have phone apps as well.

"Grok"ing for Answers

The new digital mode of M17 has many resources scattered throughout the Internet, with dozens of people experimenting, writing articles and blog posts, and creating YouTube videos on arcane but important aspects of getting this new technology to work properly. Google searching for various error messages is slow and frustrating, but the new tools are far better at finding solutions. For example, last night I encountered an error message on the M17 hotspot log that read ***"Invalid access attempt from WB2MNF to ALL".*** Googling this error message was pointless since it's unlikely that my callsign would appear in any examples of this message.

But pasting that error message into the new ***"Grok"*** AI system developed by one of Elon Musk's companies created an extensive list of debugging steps obtained from multiple sources, many of which were helpful. It first organized its answer into a list of causes for the error and then created a "how to fix it" section with bullet-pointed steps that were very detailed, in some cases giving me the exact commands that I needed for debugging. Structuring my prompt message was important - I needed to tell it that I was using the WPSD hotspot software with the M17 modulation scheme; otherwise it would have given a solution for the DMR modulation scheme. (I did it wrong the first time but was able to correct it by simply adding ***"It's M17"*** as the next command.)

I had similar success asking Grok how to calibrate the MMDVM modem in the WPSD software. It responded with detailed instructions on how to log into the Raspberry Pi and run a separate modem calibration program, giving me the commands and options for that program and describing the process for setting frequency offsets and deviations. Obviously this information exists somewhere on the web, but finding it would have been far more difficult than simply asking Grok.

Another cool feature of Grok is that an entire conversation can be shared with others simply by clicking the ***"Share"*** button. This creates a link that can be pasted into a document or e-mail or in this case onto the GCARC Discord site for M17 development. In this way, detailed solutions can easily be shared among different users, and the shared solution can continue to be queried if an additional user needs different information.

I found that Grok seems to be far better at answering questions than its Microsoft or Google competitors. While the other programs seemed to stick at a high level, Grok seems to understand the concepts of problem-solving, digs into its source documents to find details, and structures its answers in a much more useful way. It's currently available with a free option, and I don't know the details of how it will be priced on an ongoing basis, but it's worth giving it a try.

Managing Manuals

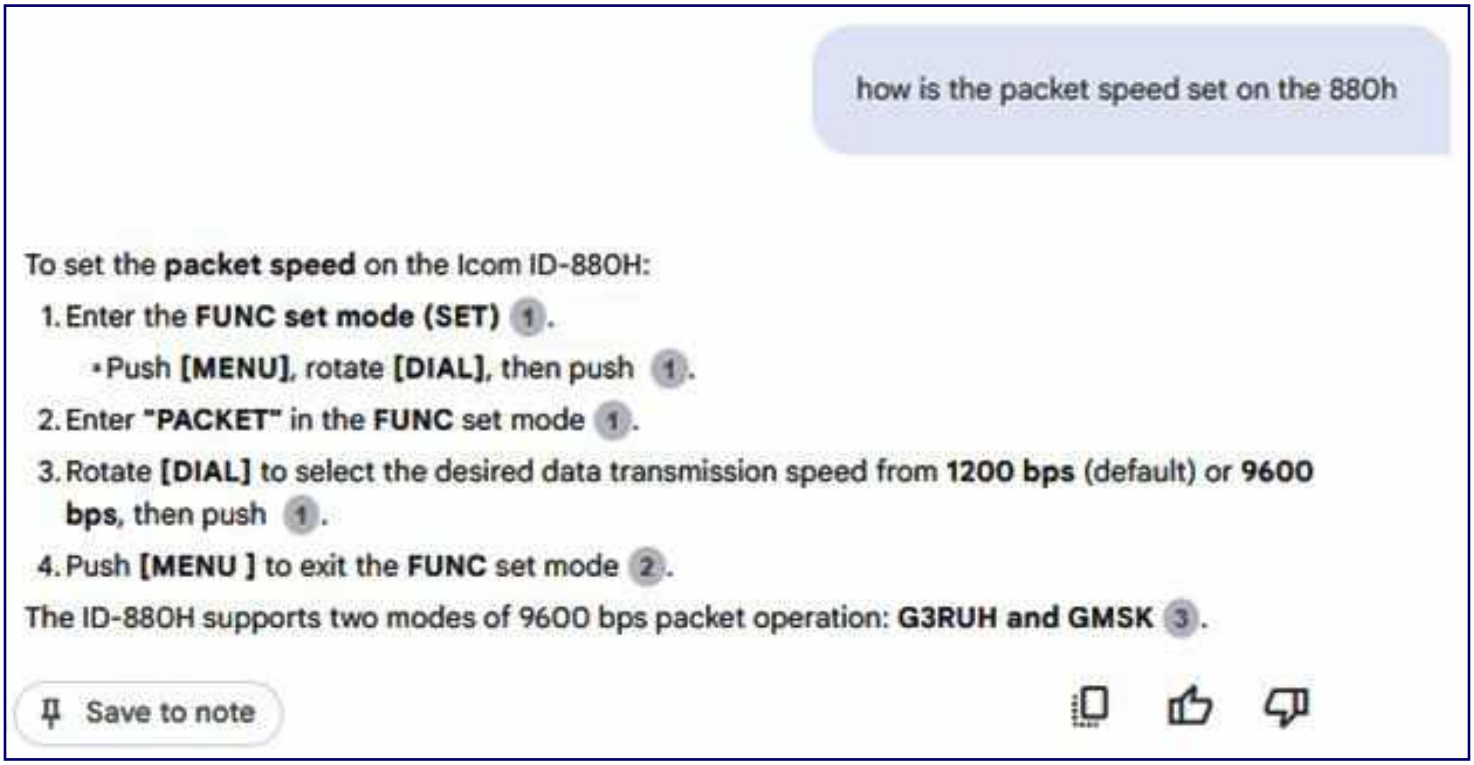
With multiple pieces of ham radio equipment around my work area (I really don't have a "***hamshack***") and at the Clubhouse I need access to a lot of manuals for equipment, Because I don't have a good way of cataloging them I usually have to download them each time I need one. And while a PDF manual is searchable, it's also cumbersome to find the specific answer for which you're searching.

AI Ham Radio Applications - Continued on page 29

AI Ham Radio Applications - Continued from page 28

An AI solution for this is using Google's NotebookLM model, which I've mentioned previously as a repository for CrossTalk issues. This program differs from other AI applications in that it limits its sources to the documents that the user has provided, which can be text files, websites, YouTube videos, and several others. Once these sources are uploaded into the notebook it can answer questions about those sources.

As a test I downloaded the manuals for my ID-880H, IC-7100 and FT-991A radios and added them to a new Google NotebookLM notebook. I then asked that notebook typical questions I might have about how to set up these radios. For example I asked it how to set the packet speed on the 880H, and you can see the answer in the screenshot below. I certainly could have searched the PDF of the manual but it would take much more time than using the LM model.


how is the packet speed set on the 880h
To set the packet speed on the Icom ID-880H:
1. Enter the FUNC set mode (SET) 1.
• Push [MENU], rotate [DIAL], then push 1.
2. Enter "PACKET" in the FUNC set mode 1.
3. Rotate [DIAL] to select the desired data transmission speed from 1200 bps (default) or 9600 bps, then push 1.
4. Push [MENU] to exit the FUNC set mode 2.
The ID-880H supports two modes of 9600 bps packet operation: G3RUH and GMSK 3.
Save to note

Taking AI to the Next Step

An interesting project for an enterprising Club member would be to develop a comprehensive notebook containing manuals for most pieces of amateur radio gear, documenting it and making it available to all Club members. Expanding the use of AI models throughout the Club would be a unique and fascinating resource for many members, so let me know if you're interested and I'll help you get started.

You could be the first GCARC "AI Committee" chairperson!

Amateur Radio Emergency Services - March 2025 Resources - News - Updates

By Bob Keogh, KD2NEC - kd2nec@qsl.net
Gloucester County Emergency Coordinator

There are three good reasons for us to join the American Red Cross :

1. The New Jersey Region of the American Red Cross is our one and only Served Agency.
2. The American Red Cross is by far the most professional Volunteer Disaster Service Organization that I've ever served with.
3. You get to celebrate with our friends on the Battleship New Jersey, during Red Cross Month, every year in March. The only catch is you must become a Registered Volunteer but there is no entrance fee. Most of us have joined the "Disaster Services Technology" group. If you have any questions, please do not hesitate to reach out to me.

Here is a invitation from Rosie Taravella, CEO of American Red Cross New Jersey Region.

Join us to kick off Red Cross Month! On Sunday, March 2, 2025, the American Red Cross New Jersey Region will be kicking off Red Cross Month onboard the Battleship New Jersey and we'd love for our volunteers and employees to join us!

For the past few years, we've been fortunate to kick off Red Cross Month on the Battleship New Jersey with a ceremony and flag raising, which helps acknowledge both the historic and ongoing relationship between the American Red Cross and the U.S. Armed Forces.

March has been recognized as Red Cross Month for more than 80 years. Beginning with President Franklin D. Roosevelt in 1943, every U.S. President has designated March as Red Cross Month to recognize how the American Red Cross helps people across the country and around the world.

The flag raising, ceremony, and side-gun salute will take place on Sunday, March 2, 2025.

- 11:00 a.m. - 12:30 p.m.
- Battleship New Jersey
- 100 Clinton Street
- Camden, New Jersey 08103

We hope you can join us. Please register at : **https://volunteerconnection.redcross.org** for this event on Volunteer Connection. This event is outdoors and is rain or shine. Please dress for the weather and wear appropriate footwear to easily move around on a battleship. Parking is free and available on Clinton Street with additional parking available by the marina. Tours of the Battleship New Jersey are available after the ceremony.

Feel free to contact Communications Director Diane Concannon, diane.concannon@redcross.org if you have questions.

Yours in Service,
Rosie Taravella
CEO, American Red Cross New Jersey Region

© 2008, 2022 American Red Cross, All Rights Reserved.

American Red Cross
New Jersey Region

March is Red Cross Month

Kickoff Event

Battleship New Jersey

You are cordially invited to join the American Red Cross New Jersey Region as we kick off **March is Red Cross Month** onboard the Battleship New Jersey.

Join us for a flag raising and a brief ceremony, followed by a side gun salute!

Sunday March 2, 2025
11:00 a.m. – 12:30 p.m.
Battleship New Jersey
100 Clinton Street, Camden, New Jersey

Red Cross Volunteers, please register in Volunteer Connection

BATTLESHIP New Jersey

Club Member	DMR ID
W2MMD Clubhouse	**3198604**
Michael Andrescavage, N2ICV	3134044
Lance Appel, KE2UC	3200487
Alex Calabrese, WA2ADS	3100583
Chuck Capasso, WB2PGE	3169781
Matthew Carango, N3QB	3169432
Todd Cecilio, KA2YNT	3169458
Anthony Cerami, N2OAC	3202759
Mark Clark, N3QMJ	3102110
Norm Coltri, K2NRC	3183851
Holden Correia-Fisher, KD2JPV	3104911
Mike Covaleski, N2MMC	3134855
Walter Coward, WX2E	3166863
Bob Demola, KD2GFL	3134319
Doug Dersch, KD2VQA	3193630
Thomas Distelcamp Sr, KC2GYC	3110869
Glenn Dougherty, N2YIO	3161836
Adam Duncan, W3DUN	3202691
Herb Dyer, KT2Y	3134907
Harry Elwell, AD5TT	3128498
James Foster, W3JNF	3142117
Karl Frank, W2KBF	3146716
Glen Guenther, KE2BUO	3202079
Melissa Guenther, KE2BWZ	3202496
Deirdre Anne Hebert, AD2GQ (AB1ST)	3133330
Chuck Lanard, KD2EIB	3134298

Club Member	DMR ID
Gary Mirkin, WA3SVW	3165494
John Murrow, KD2NHK	1134122
John Newman, WB4YLM	3213273
Phil Nunzio, WA3RGY	3134336
John O'Connell, K2QA	3110610
Robert Pantazes, W2ARP	3157208
Sheldon Parker, K2MEN	3214037
Jonathan Pearce, WB2MNF	3163415
Michael Pecorini, K2MRP	3132996
Michael Pentimall, KC3VTF	3203601
John Price III, KD2QYC	3123583
Chris Prioli, AD2CS	3195449
Michael Resnick, N2WOQ	1134013
Len Rust III, W2LJR	3186225
Len Rust IV, K2LJR	3196243
Dave Sheppard, W2PAX	3112666
Cory Sickles, WA3UVV	1142052
James Simeone, KC2AOF	3134848
Stan Slachetka, WA2JRZ	3213904
Court Smith, KD2SPJ	3186243
Jackson Snyder, AI2D	3164371
Rich Subers, W2RHS	3204316
Brett Waller, K2BKW (KC2UXQ)	3134261
Bill Wood, KD2OSJ	3197459
John Zaruba Jr, K2ZA	3134331
New Entries For March	

For more information, DMR links, and W2LJR's DMR presentations, go to :
https://gloucestercountyarc.weebly.com/dmr.html

DMR Configuration Sequence

1. **Obtain and Configure DMR ID :**
   - **https://www.radioid.net**
2. **Download Contact List :**
   - **http://www.dmrcontacts.com**
3. **Identify Repeater or Hotspot :**
   - **https://www.repeaterbook.com**
4. **Define Talk Groups**
   - **Numerical ID**
   - **Text Name**

https://brandmeister.network/?page=talkgroups

5. **Create Channel**
   - **Select Number**
   - **Assign Name**
   - **Select DMR ID**
   - **Assign Frequency**
     - **Transmit**
     - **Receive**
     - **Bandwidth**
     - **Power**
     - **DMR Mode (Simplex/Repeater)**
     - **TX Permit (Channel Free)**
   - **Assign Talk Group**
   - **Assign Color Code**
     - **Agreed Upon with Other Users**
   - **Assign Time Slot**
   - **Agreed Upon with Other Users**
6. **Create Zone**
7. **Add Channels to Zones**
8. **Configure Features**
9. **Upload Code Plug**
10. **Upload Contact List**

If you recently changed your callsign, contact idteam@dmr-marc.net to have your DMR ID transferred to your new callsign.

ARES Resources (Updated as of November 2024)

ARRL ARES Registration Form : https://bit.ly/3Ae2pCf
Download the ARES Manual [PDF] : https://bit.ly/3iUhJLQ
ARES Field Resources Manual [PDF] : https://bit.ly/3QT4PtY
ARES Standardized Training Plan Task Book July 2024 Ver. 3.0 [Fillable PDF] : https://bit.ly/4dToEes
ARES Standardized Training Plan Task Book July 2024 [Word] : https://bit.ly/4heLXSU
ARRL ARES Plan July 2024 : https://bit.ly/3Uf8gyf
ARES Group Registration : http://bit.ly/3XodGpX
ARRL Emergency Communications Training : http://bit.ly/3J2gMMf
FEMA 2023 National Preparedness Report : https://bit.ly/3YrPWnY
Southern New Jersey Section Emergency Operations Plan 2023.PDF : https://bit.ly/3YqMdHb
ARRL ARES Monthly Newsletters : https://bit.ly/408OV5d

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service when disaster strikes. Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES. Training may be required or desired to participate fully in ARES. Please inquire at the local level for specific information. Because ARES is an amateur radio program, only licensed radio amateurs are eligible for membership. The possession of emergency-powered equipment is desirable but is not a requirement for membership.

If you are interested in learning more about the Gloucester County ARES Program or becoming an ARES member, please contact Bob Keogh (KD2NEC@QSL.NET)

Amateur Radio Emergency Preparedness Act Re-Introduced

Legislation Will Increase Communication Options During Natural Disasters

WASHINGTON - U.S. Senators Roger Wicker, R-Miss., and **Richard Blumenthal, D- Conn.**, and **Representatives August Pfluger, R-Tex.**, and **Joe Courtney, D-Conn**. announced their joint re-introduction of legislation in the Senate and House to restore the right to Amateur Radio operators to install the antennas necessary to serve their communities.

Homeowner association rules often prevent Amateur Radio operators from installing antennas at their homes even though Amateur Radio has proven to be essential in emergencies and natural disasters such as hurricanes when other means of communication fail.

"Mississippians should have access to every possible means of warning for natural disasters, including amateur radio operators. In an emergency, those warnings can mean the difference between life and death," **Senator Wicker said**. "The Amateur Radio Emergency Preparedness Act would remove unnecessary roadblocks that could help keep communities safe during emergencies like tornadoes, hurricanes, and fires."

"When disaster strikes, amateur radio operators provide vital, often life-saving information, which shouldn't be hindered by prohibitive rules or confusing approval processes. The Amateur Radio Emergency Preparedness Act eliminates obstacles for ham radio enthusiasts, allowing them to continue their communications and serve their communities in the face of emergencies," **said Senator Blumenthal**.

"Natural disasters and other emergency situations that hinder our regular lines of communication are unfortunately unavoidable, which is why we must bolster our emergency preparedness by removing the barriers amateur radio operators often run into when installing antennas. Amateur radio plays a vital role in public safety by delivering critical information to people at all times. My district is home to dozens of amateur radio operators ready to volunteer in the event of an emergency, and I am proud to lead this legislation," **said Congressman August Pfluger**.

"As we know from recent natural disasters, amateur radio operators in Connecticut can be a critical component of disaster response and emergency management. It is in our communities' best interest that we give them the capabilities to operate at the highest level, and with the re-introduction of this bill, we've taken a strong step in that direction," **said Congressman Courtney**.

Background :
The Amateur Radio Emergency Preparedness Act of 2025 (H.R. 1094 and S. 459) would require homeowner associations to accommodate the needs of FCC-licensed Amateur Radio operators by prohibiting the enforcement of private land use restrictions that ban, prevent, or require the approval of the installation or use of Amateur Radio station antennas. Homeowner associations have often prevented installation and use of such antennas through private land use restrictions. This has hindered voluntary training for emergency situations and blocked access to necessary communications when disaster strikes.

Among other provisions, this legislation would :

- Prohibit homeowner association rules that would prevent or ban Amateur Radio antennas
- Specify an approval process for installing Amateur Radio antennas
- Provide a Federal private right of action to Amateur Radio operators in disputed cases

Amateur Radio Emergency Preparedness Act - Continued on page 35

Amateur Radio Emergency Preparedness Act - Continued from page 34

On behalf of America's Amateur Radio licensees, **Rick Roderick, the President of The American Radio Relay League**, re-confirmed the ARRL's full support for the passage of the Amateur Radio Emergency Preparedness Act of 2025 and extended his thanks and appreciation to Senators Wicker and Blumenthal and Congressmen Pfluger and Courtney for their unflagging leadership of the bi-partisan effort to support and protect the rights of all Amateur Radio Operators.

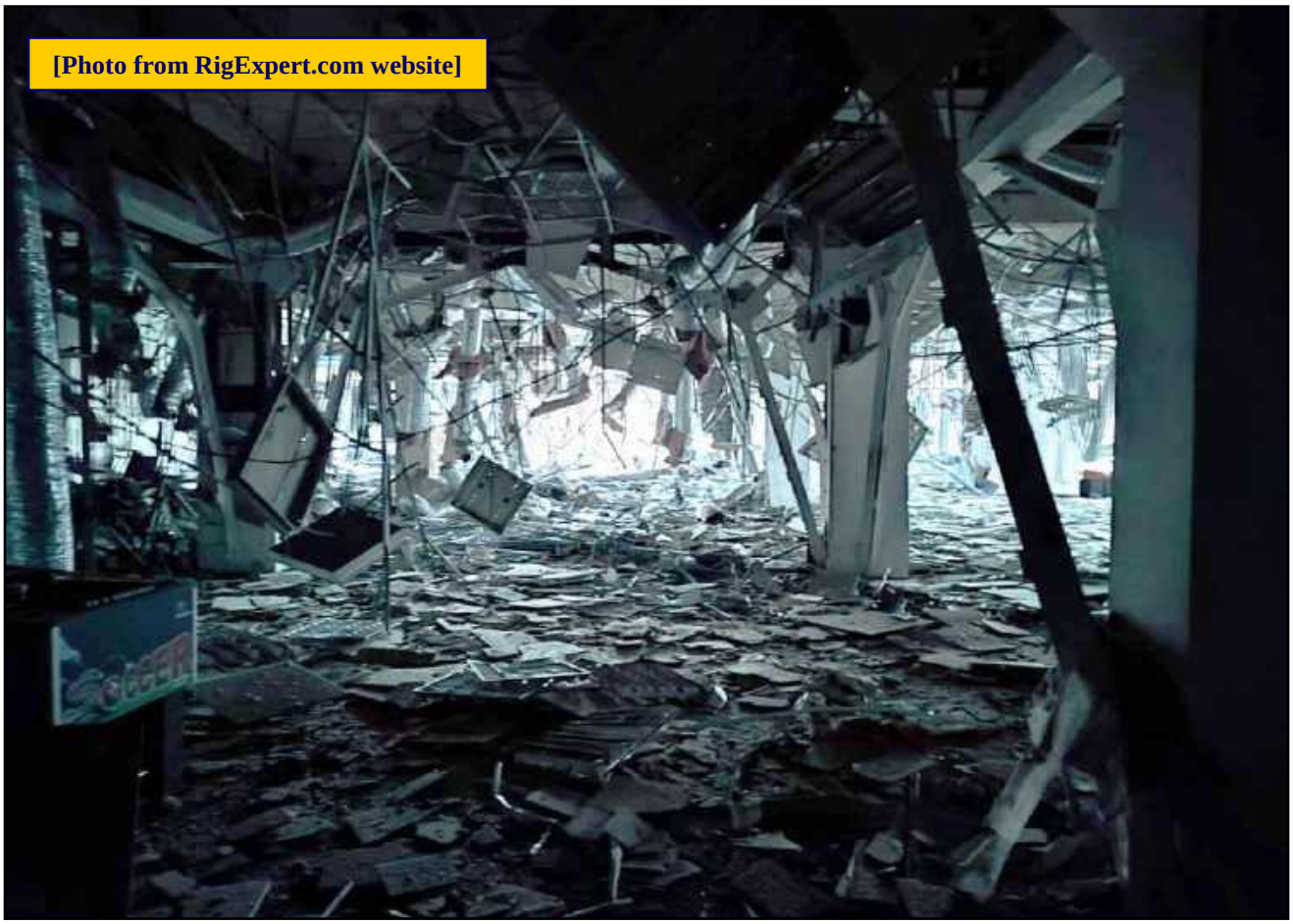
The text of the House version can be found at this link : https://bit.ly/4aTNOd2

Article Credit : ARRL Member Bulletin for February 8, 2025 - www.arrl.org

RigExpert's Administrative Office Destroyed in Russian Missile Attack Production Remains Intact

On February 12, 2025, RigExpert's administrative office, in Kyiv, Ukraine, was destroyed by a Russian ballistic missile. All employees are reported to be safe. RigExpert is a leading manufacturer of antenna and cable analyzers and officials said they are committed to restoring operations as soon as possible. "Our top priority is the safety of our team and the continuity of our operations," said Ashot Andeev, Chief Executive Officer. "While our administrative office is in ruins, our production facilities survived, allowing us to continue serving our customers and partners." The company is working to minimize delays and fulfill its commitments while maintaining customer support operations.

Article Credit : ARRL Letter for February 13, 2025 - www.arrl.org



[Photo from RigExpert.com website]

Will An Asteroid Hit Earth On December 22, 2032?

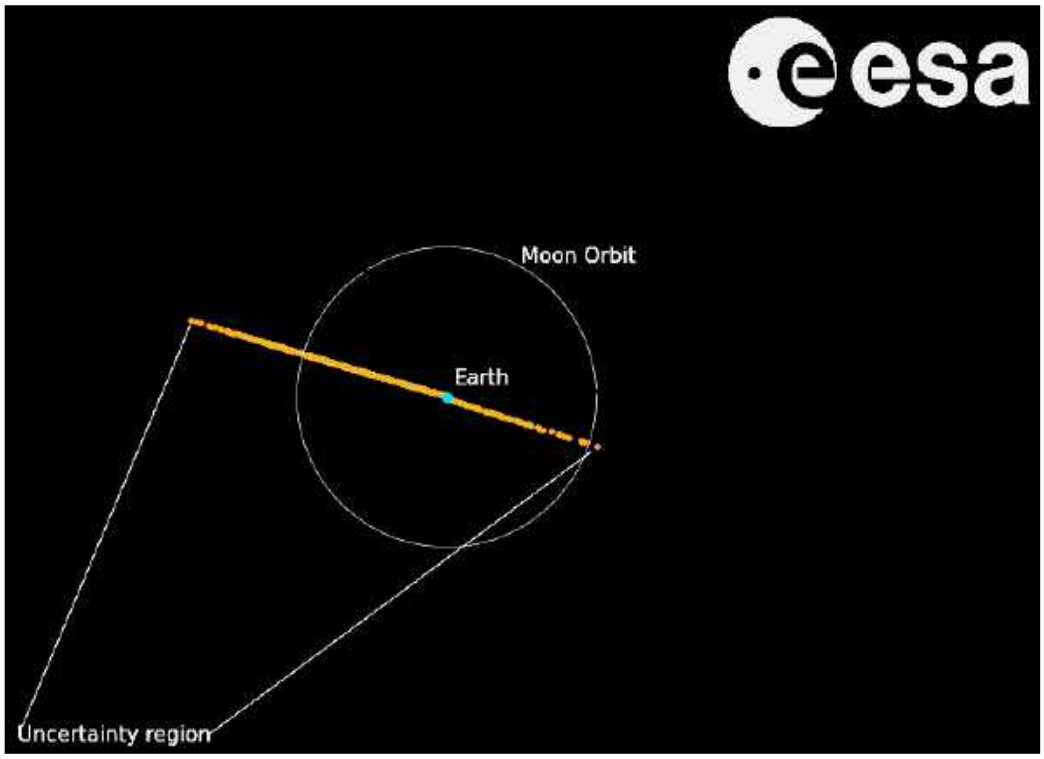
By Jim Wright, N2GXJ

It's hard to guess what we'll be doing 7 years from now, but there's a chance we'll be looking up. The predicted odds of recently discovered Asteroid 2024 YR4 hitting Earth on December 22, 2032 just increased to 3.1% this week, up from 1% when it was first discovered late last year. Now assessed as a "3" on the **Torino Scale (https://en.wikipedia.org/wiki/Torino_scale)**, it is getting some attention in "the news". "The news" being in quotes, as we can see some AI-fueled bloggers starting to produce eye-catching headlines for their articles on this thing. Looking for facts amongst the splashy headlines, I turned to NASA and the European Space Agency web sites for updates on what they have to say on the matter. Here's a quick summary of what we can see today.

Updates from **NASA (https://science.nasa.gov/planetary-defense)** and from the **European Space Agency (https://www.esa.int/Space_Safety/Planetary_Defence)** provide an overview of the asteroid and ongoing activities to assess it, including plans to use the James Webb Space Telescope to better assess its size.

As more observations are made, the impact hazard assessment will continue to be updated, with the latest data posted to the Sentry page for this object **(https://cneos.jpl.nasa.gov/sentry/details.html#?des=2024%20YR4).** As of this writing, the Sentry page describes 2024 YR4 as an approximately 55 meter (180 feet) wide object of approximately 2.2e+8 kg having about a 3.1% chance of hitting Earth (2/18/25 prediction) at an impact velocity of approximately 17.3 km/s (that's 38k MPH) with an impact energy of approximately 7.7 Megatons. That would be a big hit for those at ground zero, but not a planet killer. Fortunately there's still quite a bit of uncertainty in the orbital predictions, so it might not hit us at all. As more observations are made, the chance of a predicted complete miss traditionally go up. You can see this explained in the data from the European Space Agency in their latest blogpost that is linked from here **(https://www.esa.int/Space_Safety/Planetary_Defence/ESA_actively_monitoring_near-Earth_asteroid_2024_YR4)**.

So, what's next? The 10 Feb 2025 entry in the ESA's blogpost says the James Webb Space Telescope will continue to be used to observe the asteroid once it is beyond the limits of ground-based telescopes to provide the final measurements of its orbit until it returns to view in 2028. Hopefully, by then, asteroid "2024 YR4" will be old news, and we'll be on to the next big thing.



Uncertainty region for Earth collision prediction. Credit: ESA/Planetary Defence Office (https://blogs.esa.int/rocketscience/2025/02/04/asteroid-2024-yr4-latest-updates)

2024-2028 Element 4 Amateur Extra Class License Question Quiz

This month we continue with Subelement E2 Operating Procedures (5 exam questions - 5 groups).
(Answers on Last Page)

E2C01
What indicator is required to be used by US-licensed operators when operating a station via remote control and the remote transmitter is located in the US?
A. / followed by the USPS two-letter abbreviation for the state in which the remote station is located
B. /R# where # is the district of the remote station
C. / followed by the ARRL Section of the remote station
D. No additional indicator is required

E2C02
Which of the following file formats is used for exchanging amateur radio log data?
A. NEC
B. ARLD
C. ADIF
D. OCF

E2C03
From which of the following bands is amateur radio contesting generally excluded?
A. 30 meters
B. 6 meters
C. 70 centimeters
D. 33 centimeters

E2C04
Which of the following frequencies can be used for amateur radio mesh networks?
A. HF frequencies where digital communications are permitted
B. Frequencies shared with various unlicensed wireless data services
C. Cable TV channels 41-43
D. The 60-meter band channel centered on 5373 kHz

E2C05
What is the function of a DX QSL Manager?
A. Allocate frequencies for DXpeditions
B. Handle the receiving and sending of confirmations for a DX station
C. Run a net to allow many stations to contact a rare DX station
D. Communicate to a DXpedition about propagation, band openings, pileup conditions, etc.

E2C06
During a VHF/UHF contest, in which band segment would you expect to find the highest level of SSB or CW activity?
A. At the top of each band, usually in a segment reserved for contests
B. In the middle of each band, usually on the national calling frequency
C. In the weak signal segment of the band, with most of the activity near the calling frequency
D. In the middle of the band, usually 25 kHz above the national calling frequency

Element 4 Amateur Extra Class Quiz - Continued on page 38

E2C07
What is the Cabrillo format?
A. A standard for submission of electronic contest logs
B. A method of exchanging information during a contest QSO
C. The most common set of contest rules
D. A digital protocol specifically designed for rapid contest exchanges

E2C08
Which of the following contacts may be confirmed through the Logbook of The World (LoTW)?
A. Special event contacts between stations in the US
B. Contacts between a US station and a non-US station
C. Contacts for Worked All States credit
D. All these choices are correct

E2C09
What type of equipment is commonly used to implement an amateur radio mesh network?
A. A 2-meter VHF transceiver with a 1,200-baud modem
B. A computer running EchoLink to provide interface from the radio to the internet
C. A wireless router running custom firmware
D. A 440 MHz transceiver with a 9,600-baud modem

E2C10
Why do DX stations often transmit and receive on different frequencies?
A. Because the DX station may be transmitting on a frequency that is prohibited to some responding stations
B. To separate the calling stations from the DX station
C. To improve operating efficiency by reducing interference
D. All these choices are correct

E2C11
How should you generally identify your station when attempting to contact a DX station during a contest or in a pileup?
A. Send your full call sign once or twice
B. Send only the last two letters of your call sign until you make contact
C. Send your full call sign and grid square
D. Send the call sign of the DX station three times, the words “this is,” then your call sign three times

E2C12
What indicates the delay between a control operator action and the corresponding change in the transmitted signal?
A. Jitter
B. Hang time
C. Latency
D. Anti-VOX

Regional Skywarn Websites For On-Line And In-Person Training Classes

Philadelphia/Mt Holly Skywarn : www.weather.gov/phi/skywarn
State College, PA Skywarn : www.weather.gov/ctp/skywarn
Pittsburgh, PA Skywarn : www.weather.gov/pbz/skywarn

Weather Information Nets & Frequencies

Hurricane Watch Net : www.hwn.org

- **Day Time : 14.325 MHz**
- **Night Time : 7.268 MHz**
- **Information : 14.300 MHz**

Local SKYWARN Frequencies :

- **Atlantic County : K2BR, 146.745 MHz (-) 146.2 Hz**
  - ◊ **Net Every Monday @ 1900 Hours**
- **Camden County : K2EOC, 146.895 MHz (-) 91.5 Hz**
  - ◊ **Net Every Thursday @ 2030 Hours**
- **Cumberland County : KE2CK, 146.805 MHz, (-) 118.8 Hz**
  - ◊ **Net Every Monday @ 1930 Hours**
- **Gloucester County : W2MMD, 147.180 MHz (+) 131.8 Hz**
  - ◊ **Net Every Sunday @ 1930 Hours**
- **Salem County : N2KEJ, 146.625 MHz (-) 131.8 Hz**

Club Merchandise from the K2ZA Workshop
Contact John Zaruba Jr, K2ZA at k2za@icloud.com
Go To : https://gloucestercountyarc.weebly.com/club-merchandise.html

Jersey String Band Update

By Glenn Dougherty, N2YIO

Hi all N2YIO here with the Jersey String Band report.

First I never made it to the New Year's day parade this year. I fell at the last indoor rehearsal and fractured my right hip. So I spent New Year's day in Inspira Mullica Hill and watched the parade on TV.

The Band did a great show. They finished 12th because two of the other bands broke the rules of the association by changing their themes and not notifying the association in the allotted time period before the parade. So our Band finished 12th but not the way we wanted too. The Band has submitted their theme for 2026 which will be a 50s theme. We also took part in the drawing for where in line we will march. We will be the last band to march that day in 14th spot. So now it time to get to work and get the music to the arranger so we can start working on it come June. And get the drawings made and to the costumes maker so he can start working on the 2026 costumes.

Our first parade for this year will be up in New Haven, Connecticut for their St Patrick's Day Parade. As for me, I don't think I will do much marching with the band the first part of this year due to my hip. I will not start marching until the middle of the summer when I am sure I can walk on it again without a cane. So that is about it for this month. Once I get back to rehearsals I will post more info on the future parades.

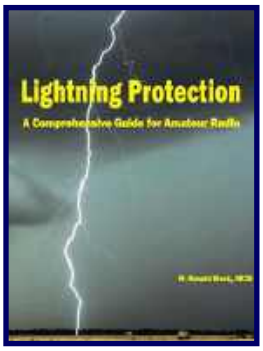
I know it is too late for the March issue of CrossTalk but the band held an open house on February 19th and anyone that plays is welcome to come out any Wednesday evening from 7:30-9:30 and sit in and play. We meet at the Woodbury Heights Fire House on Elm Avenue in Woodbury Heights. 73 for now.

Full Worm Moon - March 14, 2025 @ 0255 Hours

This name is traditionally thought to refer to the earthworms that appear as the soil warms in spring. Alternatively, during his travels in the 1760s, Captain Jonathan Carver wrote that this Moon name refers to a different sort of "worm"-larvae-which emerge from the bark of trees and other winter hideouts. Although some Cree groups used the term Eagle Moon to describe the time around February, others used this term for the Moon cycle closer to spring. The Northern Ojibwe called this Crow Comes Back Moon. The term Goose Moon was used among Algonquin and Cree peoples. Snow Crust Moon was an Anishinaabe term. Sore Eyes Moon is a Dakota, Lakota, and Assiniboine term referring to the blinding rays of the sun on snow. Sugar Moon (Ojibwe) is the time when maple sap runs. Wind Strong Moon (Pueblo) refers to the strong windy days that come at this time of year.

Old Farmer's Almanac - www.almanac.com

Lightning Protection :
A Comprehensive Guide for Amateur Radio
Author : W. Ronald Block, NR2B
Contact : ron@wrblock.com
Website : www.wrblock.com



Road Trip To K3TS QTH

By Vinnie Sallustio, N4NYY

More pictures on the Club Member News webpage

As many of you know, **Tony Starr K3TS**, recently retired, moved from Sewell, to Breezewood, PA. Tony was a multi-term president of the Club, has been a GCARC member for several decades, and is one of the nicest people you would ever want to meet. He is also known for his military mast at Field Day, which many of us help put up and take down. His 20M CW and 80M CW station is usually the top scoring station at Field Day. He is also a big-time contester, and a member of the Frankford Radio Club.

Recently, Tony graciously invited me to participate in the CQ 160 SSB contest at his QTH in Breezewood, during the Feb 21 and 22 weekend. We have kept in constant contact with Tony since he moved, usually with our DX spotter group text. I happily accepted and looked forward to participating. My contesting is usually limited for Field Day 2M and 40M phone. So this was an opportunity to work on 160m for the very first time.

We decided that we would work the second day (Saturday) of the contest. Being that 160M is a nighttime only band, I left home at 1:30pm, figuring the 3.5 hour drive would get me there about one hour before sundown. That would give Tony some time to give me a refresher course on N1MM software and some tips and tricks for working 160M.

On my drive to Breezewood, I had forgotten about the scenic beauty of the central and western PA terrain, going thru 2 mountain tunnels, and endless beautiful views. After the long drive, I arrived at his QTH. After a brief battle climbing the icy driveway, Tony greeted me at my car. The first thing that struck me was his elevation and incredible mountain views. His home is roughly 1600 feet above sea level. There was a 90 foot tower holding a tri-bander, and an inverted L for 160M, attached with 30 ground radials. This was a far cry from his former QTH in Sewell, which was riddled with S7-S9 of noise from local sources. He was in the mountains with little around.

We went inside and was greeted by his wife **Sissy**, and ultra friendly lady pooch named **Hazel**. After a brief tour of the beautiful house, we ate dinner and then went to his shack. His home was warmly heated by a fireplace in the main level, and a wood burning stove in the basement just behind his shack. The rig was set up and ready to go, and would be my first time ever using an amp. When the sun went down, we went to work. 160M contesting is a different animal. The band has significantly fewer hams on it, due to the size of antennas needed. The band is 200 kHz wide, and even with the best of antennas, you can usually work only 80 kHz of the band. Also, being limited to certain hams, the number of QSOs is finite, and you can run out.

As I got my contesting rust out of my system, sometimes misfiring using calls W2MMD or KT2Y (Herb Dyer's call), we got going like gangbusters. Since we did not operate the Friday night, we were fresh meat on Saturday night and attracted all the stations who needed a new contact. First QSO was about 6pm. We ran for several hours before it slowed down. After a lull, we had a second run for dozens more contacts, before it slowed down significantly. At this point, we were waiting for 11pm, as that is when the west coast would enter sundown and open up a slew of new multipliers for new states. From 11pm-2am, we got several west coast states and Canadian provinces, in addition to Mexico and a few European DX stations. At 2am, we lost Europe to sunrise, and the QSOs just stopped. The spotter stopped. We then scrolled thru the band in search and pounce, but found only duplicates. It was at that point that we called it a night. The finite number of QSOs had been reached. I decided to thank Tony and drive home. Tony had invited me to sleep over. After getting home at 6:30 am, I determined that the next time I will in fact sleep there, and drive home in the morning.

LOL. It was a great experience! I hope you enjoy the pictures, as much as I enjoyed the experience.

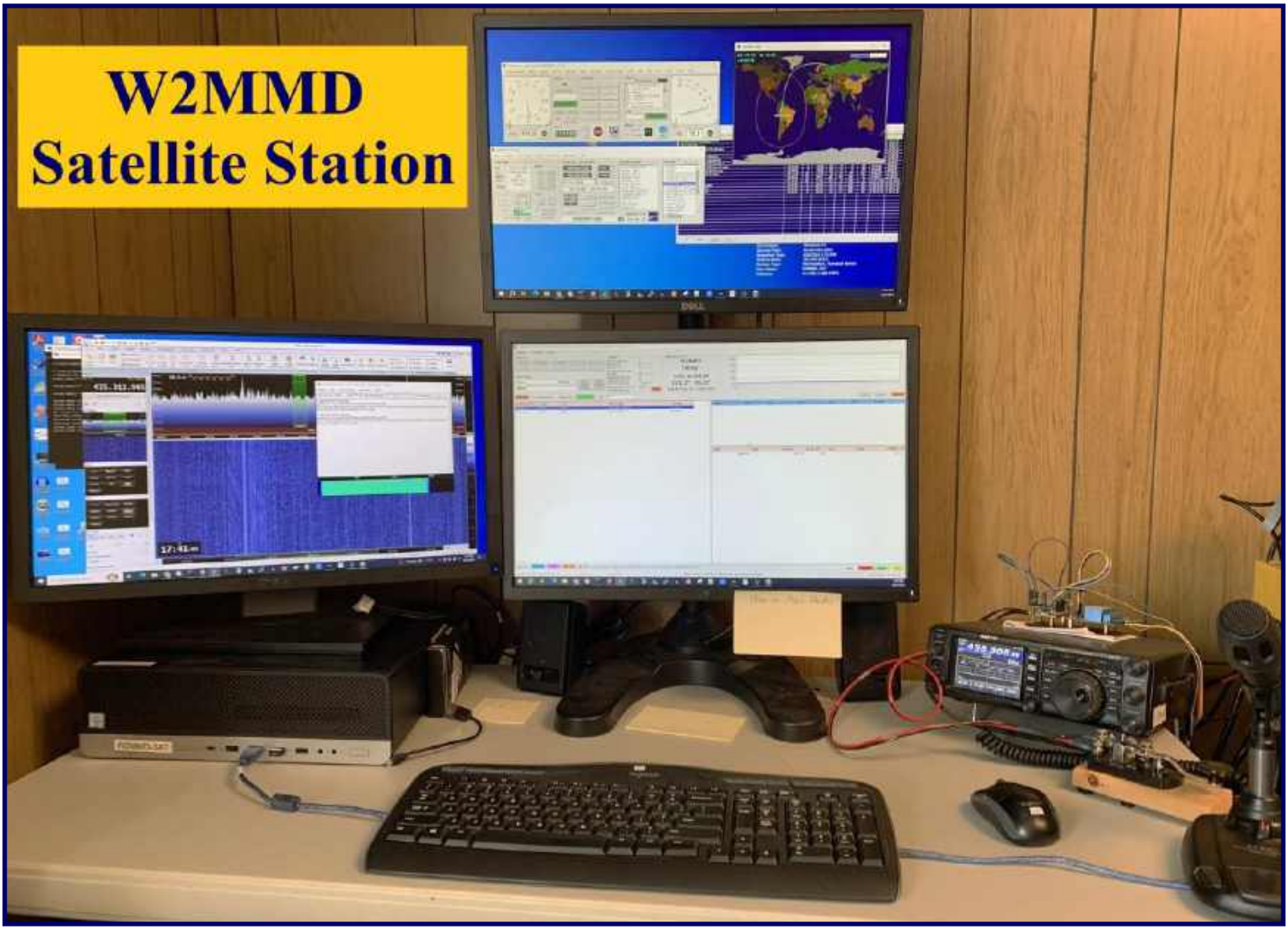
Thanks to Tony, Sissy, and Hazel!

N4NYY Road Trip To K3TS - Continued on page 42

N4NYY Road Trip To K3TS - Continued from page 41

Another FREE Clubhouse Resource Available To All Club Members

Training May Be Required : See Jon Pearce, WB2MNF For Details



CrossTalk Submissions

This is your Club Magazine. Make use of it.

If you have stories or photos of your hobby that you would like to share with the Club, please do so! We will keep covering all of the GCARC events, but it is also nice to get those personal perspectives to include in every issue. Connecting through experiences is what makes the Gloucester County Amateur Radio Club a *REAL* Club.

All submissions, queries, comments, and editorials should be addressed to :
Jeff Garth, WB2ZBN at djgrath1 <*at*> gmail <*dot*> com

Submission deadline for the April 2025 issue : Thursday, March 20, 2025

Club Website www.w2mmd.org
Club E-Mail Reflector : GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net

Gloucester County Amateur Radio Club
General Membership Meeting Minutes
Wednesday, February 5, 2025

Meeting opened @ 1900 Hours by President Jon Pearce, WB2MNF with the Pledge of Allegiance to the Flag

ATTENDANCE :

- **In-person : 33**
- **Zoom : 19**

NEW MEMBERS :

- **Marshall Baker, KC2DFO, Eastampton, NJ**
- **Brian Bossie, KE2APN, Sicklerville, NJ**
- **Troy Clancy, KE2BXW, Franklinville, NJ**
- **Kevin Wittwer, Mullica Hill, NJ**

UPCOMING EVENTS :

- **Tech Saturday Forum 2/8 "Overview of DMR" with Jon WB2MNF**
- **"Got My License - Now What" session 2/12 @ 6PM at the Clubhouse**
- **VEC Testing 2/13 @ 7PM at the Clubhouse**
- **Winter Fox Hunt 2/16 @ 1PM at the Clubhouse**
- **Director's Meeting 2/19 @ 7PM at the Clubhouse**
- **Dinner at the Clubhouse 2/26 @ 6PM**

CURRENT MEMBER ACTIVITIES :

- **Karl Frank W2KBF** showed his 40m End Fed Half Wave with 80m loading coil.
- **Chris Prioli AD2CS** reported on modifying an MD380 to use M17 instead of DMR.

BUSINESS MEETING :

Minutes of the January 2025 business meeting as published in Crosstalk were approved by voice vote of members present.

TREASURER'S REPORT :

- **YTD Income and Expenses :**
  - **Income : $2850.65**
  - **Expenses : -$369.75**
  - **Net : $2480.90**

Remarks : Treasurer's report approved by voice vote of member's present.

GLOUCESTER COUNTY AMATEUR RADIO FOUNDATION :

- Report : No report.

February 2025 General Membership Meeting Minutes - Continued on page 45

CLUBHOUSE REPORT :

- Report : **Al Arrison KB2AYU** reported on the successful January VHF Contest effort. See Crosstalk for details.

FUTURE PROGRAMS :

Report : **Ron Block NR2B** listed upcoming General Membership Meeting Programs :

- **March 2025 : "RFI with Steve Anderson W1EMI and Paul Cianciodo"**
- **April 2025 : "Beginner's Guide to VHF with Anthony Luscre K8ZT"**
- **May 2025 : "Introduction to the VNA and NanoVNA - Alan Wolke W2AEW"**
- **June 2025 : "3D Printing in the Ham Shack - Rich Gopstein"**
- **July 2025 : "Pizza Night"**

DX AND CONTESTS :

- Report : **Tony Starr K3TS** reported on upcoming contests and DXpeditions via Zoom.

PUBLIC SERVICE :

- Report : **Bob Keogh KD2NEC** reported on the recent Winter Field Day activity.

EDUCATION COMMITTEE :

- Report : **Chris Prioli AD2CS** thanked everyone for their participation in the NanoVNA class.
- License classes will be starting at the end of March / beginning of April.

TECHNICAL COMMITTEE :

- Report : **Chris Prioli AD2CS** reported on building the KV4P Smartphone VHF radio.
- **Jon Pearce WB2MNF** discussed adding M17 modules to mobile radios.

CONSTITUTION COMMITTEE :

- Report : **Ron Block NR2B** read proposed constitution changes regarding funds authority and governance of the VE Test team necessitated by ARRL VEC program updates.

OLD BUSINESS :

- **DUES ARE DUE!**

NEW BUSINESS :

- New Member's Group and Discord Channel
- **John O'Connell K2QA** reported on Budget Committee's proposed 2025 operating budget. Approved by voice vote of members present.
- **Beth Barnish KB2EAL** reported on the planning efforts for the 2025 Holiday Party.

PRESENTATION :

- **"Balloon STEM Class" by Angela Metzger KE2DRJ**

Meeting adjourned @ 2006 Hours

Respectfully submitted,
John Zaruba K2ZA, Recording Secretary

Gloucester County Amateur Radio Club
Board of Directors Meeting Minutes
Wednesday, February 19, 2025

Meeting opened @ 1900 Hours by President Jonathan Pearce, WB2MNF

Attendance :

- **President Jon Pearce, WB2MNF : Present**
- **Vice President Ron Block, NR2B : Present**
- **Treasurer John O'Connell, K2QA : Present**
- **Recording Secretary John Zaruba Jr, K2ZA : Present**
- **Corresponding Secretary Mike Resnick, N2WOQ : Present**
- **Director (2023-2025) Chris Prioli, AD2CS : Present**
- **Director (2023-2025) James Wright, N2GXJ : Present**
- **Director (2024-2026) Al Arrison, KB2AYU : Present**
- **Director (2024-2026) Bill Price, NJ2S : Present**
- **Director (2025-2027) Jeffrey Garth, WB2ZBN : Present**
- **Director (2025-2027) Frank Romeo, N3PUU : Present**
- Trustee (2022-2025) Charles Lanard, KD2EIB :
- Trustee (2023-2026) Sheldon Parker, K2MEN :
- Trustee (2024-2027) Len Rust, W2LJR :
- Trustee (2025-2028) Earl Moore, KC2NCH :
- **Member Tony Cerami, N2OAC : Present**

New Member Applications :

- **Greg Anderson, KE2FAS, Cherry Hill, NJ**
- **Edward Champion, N2RO, Franklinville, NJ - Returning Member**
- **Richard Danner, KE2FES, Mullica Hill, NJ**
- **Misael Fernandez Jr, KE2EBL, Vineland, NJ**
- **Charles Jay Fox, K2FOX, Malaga, NJ - Returning Member**
- **Robert McMeekin, KE2FEG, Haddon Township, NJ**
- **John Newman, WB4YLM, Millville, NJ**
- **Michael Talerico, Associate Member, Mullica Hill, NJ**
- **Phaon Robert Trexler III, KB3ACE, Morton, PA**

Treasurer's Report :

- **Income - $3,749.80**
- **Expense - $555.51**
- **Net - $3,194.29**

Detailed financial statements are available for member review upon request. Treasurer's report approved by voice vote of Club officers present.

February 2025 Board of Directors Meeting Minutes - Continued on page 47

February 2025 Board of Directors Meeting Minutes - Continued from page 46

Committees :

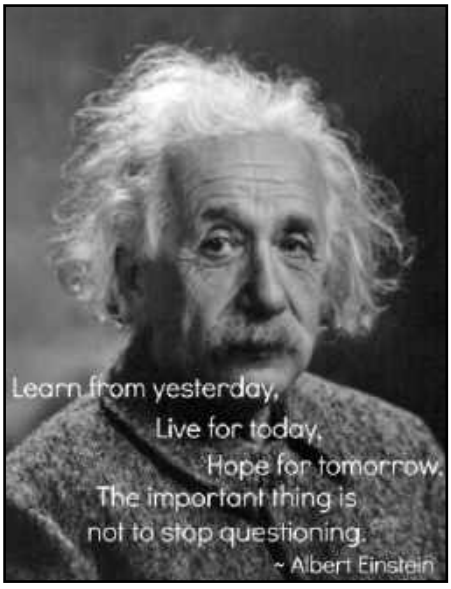
- Clubhouse - Waiting for weather to improve for projects to move forward.
- Hamfest - No report.
- Holiday Party - No report.
- Technical - No report.
- Programs - **Ron Block NR2B** reported on upcoming Club programs. Discussion of feedback from recent "Got my license, now what?" session.
- Education - March 31st next license class starts. March 1st CHIRP class at the Clubhouse. **Jon Pearce WB2MNF** reported on Woodruff School STEM activities.
- Repeaters - 2nd attempt to convert Glassboro repeater to DMR upcoming.
- Field Day - **Tony Starr K3TS** will not be able to serve as chairman this year.
- Foundation - No report.
- Membership - Discussion of membership renewals.
- Constitution - Amendments in process.
- Health / Welfare - No report.
- Foxhunt Report - Sunday, February 23, 2025.
- Club Radio Nets :
    - ♦ 40m net now on 7235 kHz 1930 on Mondays and Thursdays.
    - ♦ January 2025 2M Nets
        - ◊ Tuesdays : 8.75 Average Check-Ins
        - ◊ Thursdays : 10 Average Check-Ins

Old Business : Previous months BoD minutes approved by voice vote of officer's present.

New Business : Discussion of General Membership Meeting format and time constraints.

Meeting adjourned @ 1957 Hours

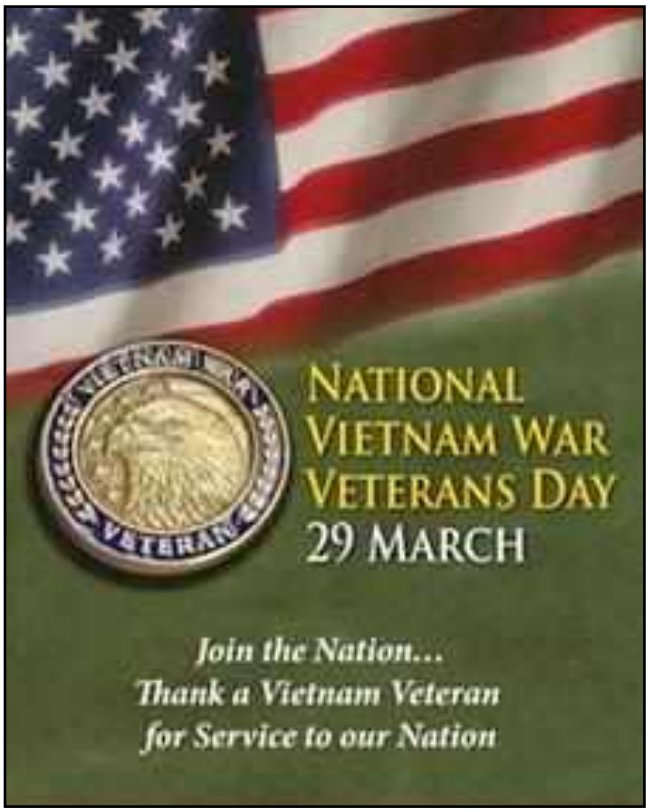
Respectfully Submitted,
John Zaruba K2ZA
Recording Secretary



Friday, March 14, 2025

To Be Added To The DX HONOR ROLL,
Please contact Ernest Kraus, KD2EAV
meanddelcanotc@verizon.net

GLOUCESTER COUNTY AMATEUR·RADIO·CLUB
DX HONOR ROLL
NEW JERSEY



Name/Callsign	DXCC
Bill Grim, W0MHK	352
Dave Strout, W2YC	349
Edward De Fonzo, W2DE	339
Darrell Neron, AB2E	336
Bob Pantazes, W2ARP	290
Gary Castellini, N2IEC	280
Vinnie Sallustio, N4NYY	272
John Hill, W2HUV	271
Sheldon Parker, K2MEN	265
Jim Wright, N2GXJ	260
Ken Denson, WB2P	248
Tony Starr, K3TS	242
Dennis Sandole, K2SE	231
Howard Marder, WA2IBZ	157
Eric Morris, N2BRJ	157
Art Strong, KA0WS	157
Steve Farney, W2SEF	147
Phil Nunzio, WA3RGY	144
Rich Subers, W2RHS	133
Bart Kleczynski, AC2PT	124
Marc Federici, WM2Y	117
Ben Johnson, NE2R	116
Chuck Capasso, WB2PGE	104
Harry Strahlendorf Jr, W3DNQ	103
Jim Clark, KA2OSV	87
Lee Marino, N2LAM	71
Updated As Of 02/24/2025	

Hmm...It's Saturday and you want to know if someone is at the Clubhouse? Why not call and find out! What!!!

W2MMD Clubhouse : (856) 244-6914

(Please, no free solar panel calls!)

ARRL RTTY Roundup Contest 2025
January 4, 2025

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : SO Unlimited HP
QTH : SNJ
Operating Time (hrs) : 10
Location : USA

Summary :

Band	QSOs
80 :	11
40 :	144
20 :	24
15 :	67
10 :	62

Total : 308 State/Prov : 57 Countries : 42
Total Score : 30,492
Club : Frankford Radio Club **001**
Comments :
Rig : K4D/OM Power 2000A+
Antennas :
10m,15m,20m : C31XR @ 52ft, C3SS @ 52ft (different towers)
40m : XM240 Yagi @ 75ft
80m : dipole @ 95ft
Op time : 10hrs
Had fun for my limited operating time. 73 & HNY,
Darrell AB2E

Contest : ARRLRTTY

Band	QSOs	Pts	Sec	DXC	Pt/Q
3.5	11	11	2	1	1.0
7	144	144	9	14	1.0
14	24	24	7	4	1.0
21	67	67	17	6	1.0
28	62	62	22	17	1.0
Total	308	308	57	42	1.0

Score : 30,492
1 Mult = 3.1 Q's

North American QSO Party, CW 2025
January 12, 2025

Call : NE2R
Operator (s) : NE2R
Station : NE2R

Class : Single Op LP
QTH : SNJ
Operating Time (hrs) : 6.0
Location : USA

Summary :

Band	QSOs	Mults
40 :	43	29
20 :	136	38
15 :	26	16

Total : 205 83
Total Score : 17,015
Club : Frankford Radio Club **005**

ARRL RTTY Roundup Contest 2025
January 4, 2025

Call : WB2PJH
Operator (s) : WB2PJH
Station : WB2PJH

Class : SO Unlimited LP
QTH :
Operating Time (hrs) : 12
Location : USA

Summary :

Band	QSOs
40 :	80
20 :	77
15 :	78
10 :	76

Total : 311 State/Prov : 53 Countries : 25
Total Score : 24,258
Club : Frankford Radio Club **002**

RAC Winter Contest 2024
December 28, 2024

Call : W2YC
Operator (s) : W2YC
Station : W2YC

Class : Single Op CW HP
QTH : NJ
Operating Time (hrs) : 11
Location : USA

Summary :

Band	CW Qs	Ph Qs	CW Mults	Ph Mults
160 :	3	0	0	0
80 :	42	0	6	0
40 :	123	0	10	0
20 :	111	0	10	0
15 :	102	0	10	0
10 :	119	0	9	0

Total : 500 0 45 0
Total Score : 126,270
Club : Frankford Radio Club **137**

North American QSO Party, CW 2025
January 12, 2025

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : Single Op Assisted LP
QTH : SNJ
Operating Time (hrs) : 10
Location : USA

Summary :

Band	QSOs	Mults
160 :	30	25
80 :	215	60
40 :	140	63
20 :	113	65
15 :	85	59
10 :	48	36
Total :	631	308

Total Score : 194,348

Club : Frankford Radio Club **003**

Team : FRC Team Volt

Comments :
Rig : K4D
Antennas :
10m,15,20m : C31XR @ 53ft, C3SS @ 52ft
40m : XM-240 Yagi @ 75ft
80m : dipole @ 95ft
160m : Inverted L over 100ft tree, RX ant HiZ4

Gee, that was fun. Nearly doubled last year's score, and this is my all-time high for this contest. The 2 new towers with a C31XR and XM-240 are really making a difference. CU in NAQP SSB next weekend! 73 Darrell AB2E

Contest : NAQPCW

Band	QSOs	Pts	Sec	Mt2	Pt/Q
1.8	30	30	25	0	1.0
3.5	215	215	57	3	1.0
7	140	140	59	4	1.0
14	113	113	60	5	1.0
21	85	85	55	4	1.0
28	48	48	33	3	1.0
Total	631	631	289	19	1.0

Score : 194,348
1 Mult = 2.0 Q's

North American QSO Party, CW 2025
January 12, 2025

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : Single Op Assisted LP
QTH : WPA
Operating Time (hrs) : 10
Location : USA

Summary :

Band	QSOs	Mults
160 :	80	29
80 :	140	51
40 :	80	50
20 :	145	48
15 :	105	48
10 :	55	31
Total :	605	257

Total Score : 155,485

Club : Frankford Radio Club **004**

Team : FRC Team Volt

Comments :
My new all-time high score for any NAQP, by about 32k. Felt like I got off to a slow start, with MANY un-answered CQ's, but things got better as the evening wore on, and I went lower in frequency. Conditions on 80 and 160 were excellent, and it is nice to be able to hear on the low bands with a much lower noise level than I had at the old QTH. I am actually looking forward to SSB next week, HI HI ! Thanks to everyone who called in, and hope you had as much fun as I did. 73 and hope to work you all again next week on phone. de K3TS

Rural hilltop location at 1600' elevation.

Radio : Kenwood TS-590sg, 100 watts.
Tower : Rohn 45g, 88 feet plus mast.
Tri-bander : Force 12 C19xr at 90'
Wire Dipoles : 80 & 40 w/ common feed point at 65 feet.
160m Inverted L : 45' of tubing with 90' top wire. 20 radials all 50' long.

Thursday, March 20, 2025
@ 0501 Hours

North American QSO Party, SSB 2025
January 19, 2025

Call : AB2E
Operator (s) : AB2E
Station : AB2E

Class : Single Op Assisted LP
QTH : SNJ
Operating Time (hrs) : 9.5
Location : USA

Summary :

Band	QSOs	Mults
160 :	8	8
80 :	142	42
40 :	136	54
20 :	173	55
15 :	154	51
10 :	55	32
Total :	668	242

Total Score : 161,656

Club : Frankford Radio Club **007**

Team : Team FRC W2

Comments :
Rig : K4D
Antennas :
10m,15m,20m - C31XR @ 53ft, C3SS @ 52ft
40m - XM-240 @ 75ft
75m - dipole @ 90ft
160m - inverted L over 100ft tree, HiZ4 RXantenna

Condx not bad in general, but could have been better on 40 in the evening. Not as many mults on (no VY, YT, or NU) as CW. A few decent runs, but they tended to be shallow and fairly short.

Tks for all the QSOs. 73 Darrell AB2E

Contest : NAQPSSB

Band	QSOs	Pts	Sec	Mt2	Pt/Q
1.8	8	8	8	0	1.0
3.5	142	142	39	3	1.0
7	136	136	50	4	1.0
14	173	173	51	4	1.0
21	154	154	48	3	1.0
28	55	55	27	5	1.0
Total	668	668	223	19	1.0

Score : 161,656
1 Mult = 2.8 Q's

North American QSO Party, SSB 2025
January 19, 2025

Call : K3TS
Operator (s) : K3TS
Station : K3TS

Class : Single Op Assisted LP
QTH : WPA
Operating Time (hrs) : 9
Location : USA

Summary :

Band	QSOs	Mults
160 :	50	23
80 :	200	40
40 :	75	40
20 :	100	42
15 :	70	33
10 :	35	24
Total :	530	202

Total Score : 107,060

Club : Frankford Radio Club **008**

Team : Team FRC W3

Comments :
Not my highest score, but not bad all things considered. I expected the higher bands to be better than they were, but we take what we can get from the propagation gods. No matter what, it seems that 80m always carries this contest when all other bands fail, much to the chagrin of the aggressive "frequency owners" who dwell on the 80m SSB sub-band. I managed to work 9 hours before back pain took me out of the game, a consequence of trying to get all of my heavy chores done before the starting gun. Next time, they get done on Sunday! Thanks to all for the QSO's, and I look forward to working NAQP again in August if I can.

73 de K3TS

Sunday, March 30, 2025

March Birthdays

Congratulations To Our Members Who Are Celebrating A Birthday This Month

Mike Andrescavage Sr, N2ICV
Bruce Canino, KD2LBU (President 2018)
Ted Coats, ND3Q
Jason Cobb, W2WRC
Tom Distelcamp Sr, KC2GYC
Joe Gadoury, N2JJG
Joe Gallagher, KC2VAQ
Jeff Garth, WB2ZBN
Fred Munzenmayer, K2DX
Dave Schwechtje Jr
Rev. Fr. Jacek Stefanski, N2FCH
Dave Strout Sr, W2YC
Randy Testa, KC3VCC
Gary Triplo, KD2EBX
Mark Wilson, K1RO
Wayne Wilson, WA2LET
Jim Wright, N2GXJ (President 2014, 2015, 2016)
John Zaruba Jr, K2ZA

In Memoriam : March Birthdays

Lawrence Archut Sr, K2LMN
Janice Bond, KA2CQX
James Casto Sr, N2IMH
Stuart Cleveland, N2WUP
Wayne "Cliff" Clifford, N2FX
John Cronin Sr, KB2ETT
Larry Ferrari, WA2MKI

Doug Gehring, WA2NPD
(President 1967, 1975, 2008, 2009)

Edwin Kephart, W2SPV
Milton Marder, WA2FGA
James Mollica Jr, K2OWE
Jerome Morrison, KF2ZA
John "Jack" Oberst, W2TLO
Paul Scarpa Sr, W2HSE
John Seaton Sr, KB2RXQ
Harold Steelman, W2BZI

Larry Ferrari, WA2MKI
March 4, 1932 - November 20, 1997

Larry was not only a ham, he was also a GCARC member from the late 1970s to the late 1980s.

He was the host of The Larry Ferrari Show from 1954 to 1997 on Channel 6 in Philly. It was a weekly Sunday morning half-hour program of organ music. He was born in Boston and resided in Cinnaminson, NJ.

Doug Gehring, WA2NPD
March 13, 1932 - October 24, 2012

Doug was a Club member from 1961 to 2012. He was a very active member. He served on many committees and held many officer positions. He was Club President in 1967, 1975, 2008, and 2009. Doug was most famous for wearing the T-shirt shown at every Field Day.

Editor's Note : Doug's many contributions to the Club was my inspiration that motivated me to give more time to the Club.

GCARC Ham Exam Preparation Class Schedule
2025 Session IX - Class Times : 1800 - 2100 Hours
Weeks 1 through 10 + Review & VE Testing Week

Class Week	Class Date	License Class Study
Week 1	Monday, March 31, 2025	Technician Class
Week 1	Tuesday, April 1, 2025	General Class
Week 1	Friday, April 4, 2025	Amateur Extra Class
Week 2	Monday, April 7, 2025	Technician Class
Week 2	Tuesday, April 8, 2025	General Class
Week 2	Friday, April 11, 2025	Amateur Extra Class
Week 3	Monday, April 14, 2025	Technician Class
Week 3	Tuesday, April 15, 2025	General Class
Week 3	Friday, April 18, 2025	Amateur Extra Class
Week 4	Monday, April 21, 2025	Technician Class
Week 4	Tuesday, April 22, 2025	General Class
Week 4	Friday, April 25, 2025	Amateur Extra Class
Week 5	Monday, April 28, 2025	Technician Class
Week 5	Tuesday, April 29, 2025	General Class
Week 5	Friday, May 2, 2025	Amateur Extra Class
Week 6	Monday, May 5, 2025	Technician Class
Week 6	Tuesday, May 6, 2025	General Class
Week 6	Friday, May 9, 2025	Amateur Extra Class
Week 7	Monday, May 12, 2025	Technician Class
Week 7	Tuesday, May 13, 2025	General Class
Week 7	Friday, May 16, 2025	Amateur Extra Class
Week 8	Monday, May 19, 2025	Technician Class
Week 8	Tuesday, May 20, 2025	General Class
Week 8	Friday, May 23, 2025	Amateur Extra Class
Week 9	Monday, June 2, 2025	Technician Class
Week 9	Tuesday, May 27, 2025	General Class
Week 9	Friday, May 30, 2025	Amateur Extra Class
Week 10	Monday, June 9, 2025	Technician Class
Week 10	Tuesday, June 3, 2025	General Class
Week 10	Friday, June 6, 2025	Amateur Extra Class
Review & Exam Week	Monday, June 16, 2025	Technician Class
Review & Exam Week	Tuesday, June 10, 2025	General Class
Review & Exam Week	Friday, June 13, 2025	Amateur Extra Class

After-Action Report For The 2025 Winter Field Day, Saturday, January 25, 2025

By Bob Keogh, KD2NEC

Participants to the best of our knowledge. Forgive me if we missed you.

- **Karl Franks W2KBF**
- **Jim Wright N2GXJ**
- **Court Smith KD2SPJ**
- **Doug Dersch KD2VQA**
- **Andrea Metzger KE2DRJ**
- **Craig Metzger**
- **Ron Block NR2B**
- **Conor McCaffrey KD2KJX**
- **Jon Pearce WB2MNF**
- **Frank Romeo N3PUU**
- **Al Arrison KB2AYU**
- **Chris Prioli AD2CS**
- **Bob Keogh KD2NEC**

We made 42 phone contacts, sent 4 Winlink Messages, and received 4 Winlink messages during 4 hours of operation (11:30 to 3:30 PM) on 40, 20, 15, 10, 2 and 70 cm bands.

Some of the States that we worked : Arkansas, Connecticut, Delaware, Florida, Massachusetts, Maryland/DC, Michigan, Mississippi, North Carolina, North Dakota, New Jersey, New York, Ohio, Oregon, Pennsylvania, Texas, Virginia, Washington, and Wisconsin.

We had a terrific turnout and everything went well.

- **14 PARTICIPANTS**
- **42 PHONE CONTACTS**
- **4 OUTGOING WINLINK MESSAGES**
- **4 INCOMING WINLINK MESSAGES**
- **4 HOURS OF OPERATIONS (11:30 AM TO 3:30 pm)**
- **BANDS WORKED: 40M, 20M.15M, 10M, 2M and 70CM**

Announced DX Operations

www.ng3k.com/Misc/adxo.html

From The Shack of Bill Feidt, NG3K : www.ng3k.com

March						
2025 Mar01	2025 Mar01	Antigua & Barbuda	V26MN	DF8AN	TDDX 20241031	By DF8AN; 80-6m, incl 60m; CW + digital, perhaps SSB
ARRL International DX Contest, SSB (Mar 1-2, 2025) Check here for pericontest activity too.						
2025 Mar01	2025 Mar09	Montserrat	VP2MMN	DF8AN	TDDX 20241031	By DF8AN; 80-6m, incl 60m; CW + digital, perhaps SSB
2025 Mar03	2025 Apr01	Turks & Caicos	VP5	LoTW	OPDX 20250123	By W1DED as VP5/W1DED; HF; possibly QRV using VP5E in WPX SSB
2025 Mar04	2025 Mar12	Cocos Keeling	VK9CU	LoTW	DL2AWG 20240911	By DL2AWG DF4GV DL2AMD DJ9RR VK6SJ VK6CQ:; HF; CW SSB FT8 RTTY; 500w; 3 stations, 24/7; QSL via DL2AWG (LoTW after 6 months)
2025 Mar05	2025 Mar16	Barbados	8P9CB NEW	WA7RAR Direct	LNDX 20250212	By WA7RAR; 20-10m; SSB CW; 100w
2025 Mar08	2025 Mar29	St Kitts & Nevis	V4 NEW	LoTW	LNDX 20250212	By G4XWM as V4/G4XWM vm Calypso Bay; HF; SSB CW; QSL via Club Log OQRS
2025 Mar09	2025 Mar10	Antigua & Barbuda	V26MN	DF8AN	TDDX 20241031	By DF8AN; 80-6m, incl 60m; CW + digital, perhaps SSB
2025 Mar09	2025 Mar19	San Andres & Providencia	HK0A	LoTW	DXW.Net 20250204	By K3ARC fm San Andres I; 20-10m; SSB, QRS CW; QSL via K3ARC direct
2025 Mar09	2025 Apr05	Sint Maarten	PJ7AA	LoTW	TDDX 20240725	By AA9A; 40-6m; CW FT8 FT4; QSL via AA9A
2025 Mar10	2025 Mar11	St Martin	FS	DF8AN	TDDX 20241031	By DF8AN; 80-6m, incl 60m; CW + digital, perhaps SSB
2025 Mar10	2025 Mar25	Andaman Is	VU4AX	M0URX	DXW.Net 20240723	By ON4AMX ON4HIL ON5UR ON5RA ON5TN ON6CC ON7FT ON7USB ON7RU ON8AZ PA9M PA3EWP; HF; CW SSB + digital; 6 stations
2025 Mar12	2025 Mar24	Jamaica	6Y7EI	M0OXO	TDDX 20241206	By DJ9RR EI2II EI2JD EI4GZB EI4HH EI4L EI5GM EI6FM EI8JB EI3IXB EI9HQ OZ1IKY; 160-6m
2025 Mar17	2025 Mar31	Grenada	J38XB	VE2XB Direct	DXW.Net 20250103	By VE2XB fm IOTA NA-024; 160-10m; SSB, some CW
2025 Mar18	2025 Apr01	Micronesia	V6WG	LoTW	TDDX 20241216	By WE9G fm Kosrae I (IOTA OC-059); 80-6m, perhaps 160m; mainly FT8 FT4, somoe SSB CW; QSL via WE9G (B/d)
2025 Mar24	2025 Apr05	Rodrigues I	3B9DJ	LoTW	DXW.Net 20240919	By OK6DJ OK1CRM OK2ZA; 160-10m; CW SSB FT8; QSL via OK6DJ
2025 Mar24	2025 Mar31	Cyprus SBA	ZC4MK	G0KOM	DXW.Net 20241221	By G0KOM; QRV for CQ WPX SSB
2025 Mar24	2025 Apr04	St Barthelemy	TO1P NEW	Club Log OQRS	SP9FIH 20250213	By SP9FIH; 40 17 10m; SSB FT8 RTTY
2025 Mar30	2025 Apr06	Honduras	HR9	LoTW	OPDX 20250130	By K6VHF as K6VHF/HR9 fm Roatan I; 80-6m; SSB CW RTTY FT8; 100w; QSL via Club Log OQRS or K6VHF (B/d)

Also for your convenience, there is a direct link to NG3K on our website. Click on the NG3K DX Page.

March 2025 Contest Calendar - WA7BNM Contest Calendar : www.contestcalendar.com

March 2025	
ARRL Inter. DX Contest, SSB	0000Z, Mar 1 to 2400Z, Mar 2
Wake-Up! QRP Sprint	0600Z-0629Z, Mar 1 and 0630Z-0659Z, Mar 1 and 0700Z-0729Z, Mar 1 and 0730Z-0800Z, Mar 1
Open Ukraine RTTY Championship	1800Z, Mar 1 to 1359Z, Mar 2
UBA Spring Contest, CW	0700Z-1100Z, Mar 2
SARL Hamnet 40m Simulated Emerg Contest	1200Z-1400Z, Mar 2
NSARA Contest	1200Z-1600Z, Mar 2 and 1800Z-2200Z, Mar 2
WAB 3.5 MHz Phone	1800Z-2200Z, Mar 2
K1USN Slow Speed Test	0000Z-0100Z, Mar 3
ICWC Medium Speed Test	1300Z-1400Z, Mar 3
OK1WC Memorial (MWC)	1630Z-1729Z, Mar 3
ICWC Medium Speed Test	1900Z-2000Z, Mar 3
RSGB 80m Club Championship, Data	2000Z-2130Z, Mar 3
Worldwide Sideband Activity Contest	0100Z-0159Z, Mar 4
ARS Spartan Sprint	0100Z-0300Z, Mar 4
ICWC Medium Speed Test	0300Z-0400Z, Mar 4
AGCW YL-CW Party	1900Z-2100Z, Mar 4
QRP Fox Hunt	0200Z-0330Z, Mar 5
Phone Weekly Test	0230Z-0300Z, Mar 5
A1Club AWT	1145Z-1300Z, Mar 5
CWops Test (CWT)	1300Z-1400Z, Mar 5
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Mar 5
Mini-Test 40	1700Z-1759Z, Mar 5
Mini-Test 80	1800Z-1859Z, Mar 5
CWops Test (CWT)	1900Z-2000Z, Mar 5
UKEICC 80m Contest	2000Z-2100Z, Mar 5
Walk for the Bacon QRP Contest	0000Z-0100Z, Mar 6 and 0200Z-0300Z, Mar 7
CWops Test (CWT)	0300Z-0400Z, Mar 6
CWops Test (CWT)	0700Z-0800Z, Mar 6
NRAU 10m Activity Contest	1800Z-1900Z, Mar 6 (CW) and 1900Z-2000Z, Mar 6 (SSB) and 2000Z-2100Z, Mar 6 (FM) and 2100Z-2200Z, Mar 6 (Dig)
SKCC Sprint Europe	2000Z-2200Z, Mar 6
NCCC FT4 Sprint	0100Z-0130Z, Mar 7
Weekly RTTY Test	0145Z-0215Z, Mar 7
QRP Fox Hunt	0200Z-0330Z, Mar 7
NCCC Sprint Ladder	0230Z-0300Z, Mar 7
K1USN Slow Speed Test	2000Z-2100Z, Mar 7
Novice Rig Roundup	0000Z, Mar 8 to 2359Z, Mar 16
YB DX RTTY Contest	**Cancelled for 2025**
SARL Field Day Contest	0800Z, Mar 8 to 1000Z, Mar 9
SARL VHF/UHF FM Contest	0800Z, Mar 8 to 1000Z, Mar 9
Commonwealth (BERU) Contest	1000Z, Mar 8 to 1000Z, Mar 9
EA PSK63 Contest	1200Z, Mar 8 to 1200Z, Mar 9
SKCC Weekend Sprintathon	1200Z, Mar 8 to 2400Z, Mar 9
DIG QSO Party, SSB	1200Z-1700Z, Mar 8 (20m-10m) and 0700Z-0900Z, Mar 9 (80m) and 0900Z-1100Z, Mar 9 (40m)
South America 10 Meter Contest	1200Z, Mar 8 to 1200Z, Mar 9
AGCW QRP Contest	1400Z-2000Z, Mar 8
Stew Perry Topband Challenge	1500Z, Mar 8 to 1500Z, Mar 9
Oklahoma QSO Party	1500Z, Mar 8 to 0200Z, Mar 9 and 1500Z-2100Z, Mar 9
TESLA Memorial HF CW Contest	1800Z, Mar 8 to 0559Z, Mar 9
Idaho QSO Party	1900Z, Mar 8 to 1900Z, Mar 9
North American Sprint, RTTY	0000Z-0359Z, Mar 9
UBA Spring Contest, 2m	0700Z-1100Z, Mar 9
FIRAC HF Contest	0700Z to 1700Z, Mar 9
YOTA Contest	1000Z-2159Z, Mar 9
Classic Exchange, Phone	1300Z, Mar 9 to 0700Z, Mar 10 and 1300Z, Mar 11 to 0700Z, Mar 12
Wisconsin QSO Party	1800Z, Mar 9 to 0100Z, Mar 10
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Mar 10
K1USN Slow Speed Test	0000Z-0100Z, Mar 10
ICWC Medium Speed Test	1300Z-1400Z, Mar 10
OK1WC Memorial (MWC)	1630Z-1729Z, Mar 10
ICWC Medium Speed Test	1900Z-2000Z, Mar 10
Worldwide Sideband Activity Contest	0100Z-0159Z, Mar 11
ICWC Medium Speed Test	0300Z-0400Z, Mar 11
QRP Fox Hunt	0100Z-0230Z, Mar 12
Phone Weekly Test	0230Z-0300Z, Mar 12
A1Club AWT	1145Z-1300Z, Mar 12
CWops Test (CWT)	1300Z-1400Z, Mar 12
Mini-Test 40	1700Z-1759Z, Mar 12
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Mar 12
Mini-Test 80	1800Z-1859Z, Mar 12
CWops Test (CWT)	1900Z-2000Z, Mar 12
RSGB 80m Club Championship, CW	2000Z-2130Z, Mar 12
CWops Test (CWT)	0300Z-0400Z, Mar 13
CWops Test (CWT)	0700Z-0800Z, Mar 13

March 2025 Contest Calendar - Continued on page 57

March 2025 Contest Calendar - Continued from page 56

BCC QSO Party	1900Z-2059Z, Mar 13
QRP Fox Hunt	0100Z-0230Z, Mar 14
NCCC FT4 Sprint	0100Z-0130Z, Mar 14
Weekly RTTY Test	0145Z-0215Z, Mar 14
NCCC Sprint	0230Z-0300Z, Mar 14
K1USN Slow Speed Test	2000Z-2100Z, Mar 14
PODXS 070 Club St Patrick's Day Contest	0000Z-2359Z, Mar 15
BARTG HF RTTY Contest	0200Z, Mar 15 to 0159Z, Mar 17
Russian DX Contest	1200Z, Mar 15 to 1200Z, Mar 16
F9AA Cup, SSB	1200Z, Mar 15 to 1200Z, Mar 16
AGCW VHF/UHF Contest	1400Z-1700Z, Mar 15 (144) and 1700Z-1800Z, Mar 15 (432)
Virginia QSO Party	1400Z, Mar 15 to 0400Z, Mar 16 and 1200Z-2400Z, Mar 16
Feld Hell Sprint	2000Z-2159Z, Mar 16
AWA John Rollins Memorial DX Contest	2300Z, Mar 15 to 0300Z, Mar 17 and 2300Z, Mar 22 to 0300Z, Mar 24
UBA Spring Contest, SSB	0700Z-1100Z, Mar 16
Run for the Bacon QRP Contest	2300Z, Mar 16 to 0100Z, Mar 17
K1USN Slow Speed Test	0000Z-0100Z, Mar 17
ICWC Medium Speed Test	1300Z-1400Z, Mar 17
OK1WC Memorial (MWC)	1630Z-1729Z, Mar 17
Bucharest Digital Contest	1800Z-2059Z, Mar 17
ICWC Medium Speed Test	1900Z-2000Z, Mar 17
RSGB FT4 Contest	2000Z-2200Z, Mar 17
Worldwide Sideband Activity Contest	0100Z-0159Z, Mar 18
ICWC Medium Speed Test	0300Z-0400Z, Mar 18
QRP Fox Hunt	0100Z-0230Z, Mar 19
Phone Weekly Test	0230Z-0300Z, Mar 19
A1Club AWT	1145Z-1300Z, Mar 19
CWops Test (CWT)	1300Z-1400Z, Mar 19
VHF-UHF FT8 Activity Contest	1700Z-2100Z, Mar 19
Mini-Test 40	1700Z-1759Z, Mar 19
Mini-Test 80	1800Z-1859Z, Mar 19
CWops Test (CWT)	1900Z-2000Z, Mar 19
IRTS 80m Counties Contest	2000Z-2100Z, Mar 19
Walk for the Bacon QRP Contest	0000Z-0100Z, Mar 20 and 0200Z-0300Z, Mar 21
NAQCC CW Sprint	0030Z-0230Z, Mar 20
CWops Test (CWT)	0300Z-0400Z, Mar 20
CWops Test (CWT)	0700Z-0800Z, Mar 20
NTC QSO Party	1900Z-2000Z, Mar 20
NCCC FT4 Sprint	0100Z-0130Z, Mar 21
QRP Fox Hunt	0100Z-0230Z, Mar 21
Weekly RTTY Test	0145Z-0215Z, Mar 21
NCCC Sprint	0230Z-0300Z, Mar 21
K1USN Slow Speed Test	2000Z-2100Z, Mar 21
FOC QSO Party	0000Z-2359Z, Mar 22
Africa All Mode International DX Contest	1200Z, Mar 22 to 1200Z, Mar 23
North American SSB Sprint Contest	0000Z-0400Z, Mar 23
UBA Spring Contest, 6m	0600Z-1000Z, Mar 23
K1USN Slow Speed Test	0000Z-0100Z, Mar 24
ICWC Medium Speed Test	1300Z-1400Z, Mar 24
OK1WC Memorial (MWC)	1630Z-1729Z, Mar 24
ICWC Medium Speed Test	1900Z-2000Z, Mar 24
Worldwide Sideband Activity Contest	0100Z-0159Z, Mar 25
ICWC Medium Speed Test	0300Z-0400Z, Mar 25
SKCC Sprint	0000Z-0200Z, Mar 26
QRP Fox Hunt	0100Z-0230Z, Mar 26
Phone Weekly Test	0230Z-0300Z, Mar 26
A1Club AWT	1145Z-1300Z, Mar 26
CWops Test (CWT)	1300Z-1400Z, Mar 26
Mini-Test 40	1700Z-1759Z, Mar 26
Mini-Test 80	1800Z-1859Z, Mar 26
CWops Test (CWT)	1900Z-2000Z, Mar 26
UKEICC 80m Contest	2000Z-2100Z, Mar 26
CWops Test (CWT)	0300Z-0400Z, Mar 27
CWops Test (CWT)	0700Z-0800Z, Mar 27
RSGB 80m Club Championship, SSB	2000Z-2130Z, Mar 27
QRP Fox Hunt	0100Z-0230Z, Mar 28
NCCC FT4 Sprint	0100Z-0130Z, Mar 28
Weekly RTTY Test	0145Z-0215Z, Mar 28
NCCC Sprint	0230Z-0300Z, Mar 28
Sasquatch Stomp	1900Z, Mar 28 to 0300Z, Mar 29
K1USN Slow Speed Test	2000Z-2100Z, Mar 28
CQ WW WPX Contest, SSB	0000Z, Mar 29 to 2359Z, Mar 30
Feld Hell Sprint	0000Z-2359Z, Mar 30
Classic Exchange, CW	1300Z, Mar 30 to 0700Z, Mar 31 and 1300Z, Apr 1 to 0700Z, Apr 2
K1USN Slow Speed Test	0000Z-0100Z, Mar 31
ICWC Medium Speed Test	1300Z-1400Z, Mar 31
QCX Challenge	1300Z-1400Z, Mar 31
OK1WC Memorial (MWC)	1630Z-1729Z, Mar 31
QCX Challenge	1900Z-2000Z, Mar 31
ICWC Medium Speed Test	1900Z-2000Z, Mar 31

Sussex Amateur Radio Association
- APRIL 26, 2025 -
Delmarva Amateur Radio & Electronics EXPO

Centrally and conveniently located...within 2 to 3 hours of major cities:
Baltimore, Philadelphia, Wilmington, Washington DC, and Virginia Beach as well as Eastern PA and Southern NJ

NO SALES TAX - MORE VALUE FOR VENDORS AND GUESTS - FREE PARKING
Bring The Family And Enjoy A Weekend At The Beach!

Past Vendors & Exhibitors
- ARRL
- Beebe Hospital
- Fisher Cable
- Call Stuff
- Direct Tools
- GnG Electronics
- Satellite Sam
- Hamsource.com
- HRO (Ham Radio Outlet)
- Magnum Electronics
- Quicksilver Radio
- Redicall Communication
- The RF Connection
- Towaco Imaging
- Verizon

Events & Attractions
- ARRL State Convention
- Tail Gating
- Great Food
- Blood Pressure Testing
- Chinese Auction
- Raffle...Big Prizes!
- License Testing
- Guest Speakers/Forums
- QSL Card Bureau/Card Checking
- Door Prizes!

Guests Pay $8 To Enter!
(Under 18 FREE!)
Inside spaces $15.00 - 1st Table
Tailgaters : $10.00 - First Space

Gates open at 6:00 A.M.
Expo begins at 8:00 A.M.

Schedule

6:00 AM	Gates Open
7:30 AM	Tailgating
8:00 AM	Indoor expo venue opens Restaurant available
12:00 PM	FCC testing -No test fee, pre-registration required **Last test seating at 12:30 PM**

Speakers Forums
ARRL Update
Others

TALK-IN: SARA Repeater
147.090 mHz PL 156.7

Schedule subject to change

For Information
Contact Jamie, W3UC
(410) 202-7690
hamfestdelaware@gmail.com

HAMFEST LOCATION:

Cheer Community Center
20520 Sand Hill Rd.
Georgetown, DE 19947

HOST HOTEL:
Tru Hotel by Hilton
301 College Park Drive
Georgetown, DE 19947
(302) 515-2100
www.hilton.com

JOIN US IN TAX FREE DELAWARE!

The Delmarva Amateur Radio Electronics EXPO is sponsored by **Sussex Amateur Radio Association**

www.radioelectronicsexpo.com
Follow us on Facebook at Delmarva Amateur Radio & Electronics

2025 Club Committees

Standing Committees	Committee Chairs
Budget	**John O'Connell, K2QA**
Constitution & By-Laws	**Ron Block, NR2B**
Education	**Chris Prioli, AD2CS**
Field Day	**Jim Wright, N2GXJ**
Hamfest	**Ron Block, NR2B**
Health, Welfare, & Silent Keys	**Bill Price, NJ2S**
Hospitality	**Jeff Garth, WB2ZBN**
Membership & Membership Badges	**Chris Prioli, AD2CS**
Publicity	**Mike Resnick, N2WOQ**
Repeaters	***Open Chair***
Volunteer Examiner Liaison	**Chris Prioli, AD2CS**
W2MMD Clubhouse Site	**Al Arrison, KB2AYU**

Activity Committees	Committee Chairs
Awards & Certificates	**GCARC Board of Directors**
Club Photographer	**Phil Nunzio, WA3RGY**
Club Publications & Historian	**Jeff Garth, WB2ZBN**
Contests	**Tony Starr, K3TS**
GCARC Foxhunts	**Jim Wright, N2GXJ**
GCARC Picnic	**Frank Romeo, N3PUU**
GC-ARES Emergency Coordinator	**Bob Keogh, KD2NEC**
Holiday Dinner Party	**Beth Barnish, KB2EAL**
Membership Roster Database	**Jeff Garth, WB2ZBN**
Nominations	**Jon Pearce, WB2MNF**
Programs : General Membership Meetings	**Ron Block, NR2B**
Radio Nets	***Open Chair***
Technical (Tech Saturday, TechNets)	**Jon Pearce, WB2MNF**
W2MMD License Trustee	**Darrell Neron, AB2E**
W2MMD Special Event Station	**Mark Gottlieb, KK2L**

GCARC <*at*> Mailman <*dot*> QTH <*dot*> Net e-mail reflector guidelines

1. **No attachments** (e.g. pictures, files) are allowed on the reflector.
2. If you have Club-related pictures that you would like to share, you can send them to the webmaster, he will put them on the website and will send out a general e-mail to all the members.
3. Otherwise, the pictures will have to be sent to the members' addresses.
4. URLs/Hyperlinks are acceptable on the reflector.
5. Do not send any messages with e-mail addresses in the **BCC** (**Blind Carbon Copy**) field. The message will be rejected. Use only the **To:** or **CC:** fields.
6. Members are subscribed to the reflector using the member's e-mail address from the roster database. You must use that address when sending an e-mail via the reflector.
7. If you use another address on the reflector, the message will get rejected or "*bounced*", because the reflector does not recognize that address. Whenever a message sent to reflector is rejected or *"bounced"* for various reasons, the administrator has to log-in to the Mailman.QTH website and approve the message.

The W2MMD Repeaters

2 Meter Repeater
Output : 147.180 MHz
Input : 147.780 MHz
Offset : +600 kHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)
EchoLink : W2MMD-R

70 cm Repeater
Output : 442.100 MHz
Input : 447.100 MHz
Offset : +5 MHz - PL : 131.8 Hz
(Conventional FM plus C4FM Capability)

The above repeaters are both
located in Pitman, NJ
GPS : 39.728481°, -75.131088°

1.25 Meter Repeater
Output : 224.660 MHz
Input : 223.060 MHz
Offset : -1.6 MHz - PL : 131.8 Hz
Location : Sewell, NJ
GPS : 39.746738°, -75.077094°

SKYWARN™ Net
Sunday @ 1930 : 147.180 MHz Repeater

Gloucester County ARES Net
Sunday @ 2000 : 147.180 MHz Repeater

GCARC TechNet ZOOM Forum
Available Every Monday @ 1930 Hours
Join ZOOM Meeting Link :
https://bit.ly/3K8bWwj

Tuesday AfterNoon 2M Net @ 1200 Hours

Tuesday & Thursday 10 Meter Net @ 1930 Hours
28.465 MHz or 28.475 MHz

Monday & Thursday Night 40M Net
1930 Hours
7.235 MHz (+/- 5 or 10 kHz)

Thursday 2M Net @ 2000 Hours

Meeting Calendar

General Membership Meeting
Wednesday, March 5, 2025
1900 Hours
Pfeiffer Community Center
Simulcast Live on ZOOM
Meeting ID : 914 7364 1808
Passcode : 843147
Join ZOOM Meeting Link :
https://bit.ly/3Pt4dLO

Board of Directors Meeting
Wednesday, March 19, 2025
1900 Hours
W2MMD Clubhouse

"There's More To Ham Radio Than You Can Possibly Do!"
- K3TS

"The big thing about being in a club and being a "Ham" is to help each other when there is a need "
- W2SEF

*** Badges ***

Need a new or replacement badge
Contact "*The Badge Man*"

Chris Prioli, AD2CS
chris@ad2cs.com

Question Pool Answers : E2C01:D; E2C02:C; E2C03:A; E2C04:B; E2C05:B; E2C06:C; E2C07:A; E2C08:D; E2C09:C; E2C10:D; E2C11:A; E2C12:C